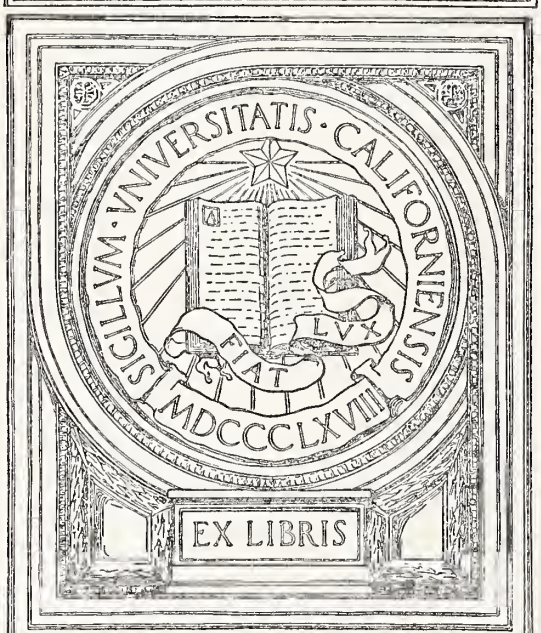
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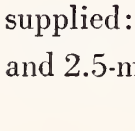
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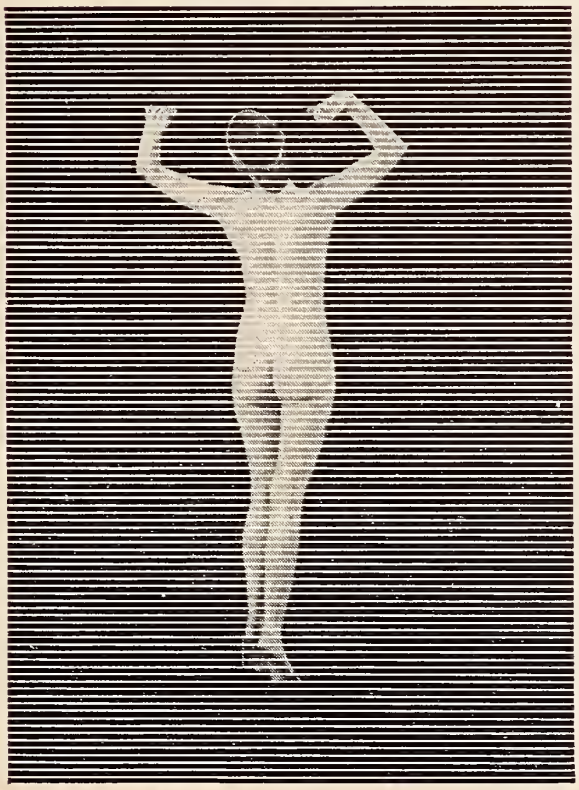
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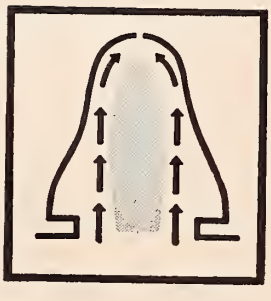


Scientifically designed to fit baby's mouth—new hollow side ribs provide continuous flow of formula.

For generations, doctors have sought a nursing nipple that would reduce air swallowing . . . a nipple that would not collapse, but instead would permit a continuous flow of formula.

Here at last is such a nipple. It is like no other nursing nipple available up to now.

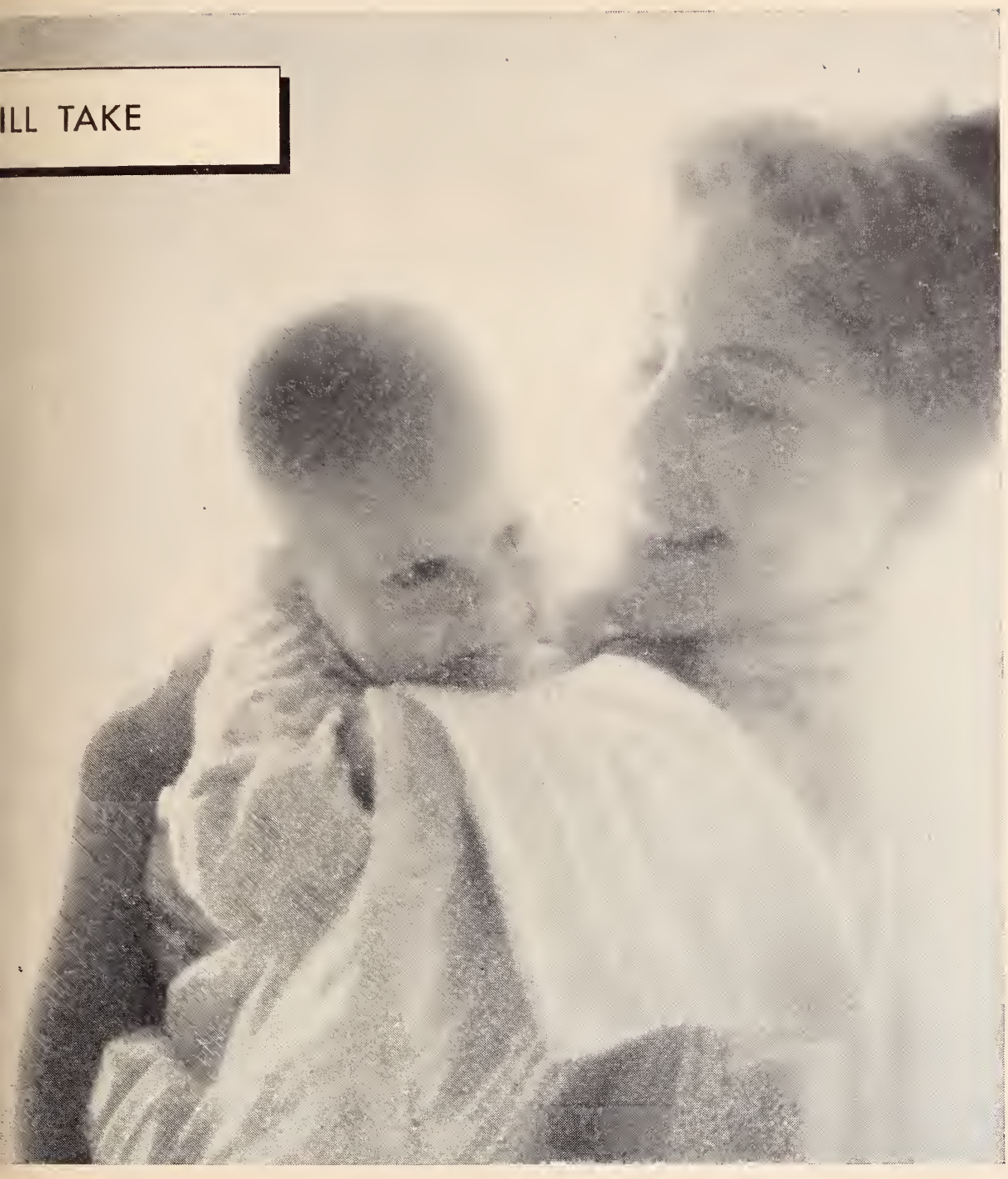
The *Curity* Rib Nipple is the result of years of development and hundreds upon hundreds of clinical tests with normal and hard-to-feed babies. It has been heartily endorsed by obstetricians and pediatricians. Mothers who have used it overwhelmingly prefer it.†



Hollow side ribs make feeding *easier* because:

- they provide continuous flow of liquids even when baby bites
- they fit the corners of baby's mouth, reducing air intake
- they permit use of naturally pliable rubber—more like breast feeding—requiring less effort yet providing adequate sucking exercise.

*T. M. The Kendall Company



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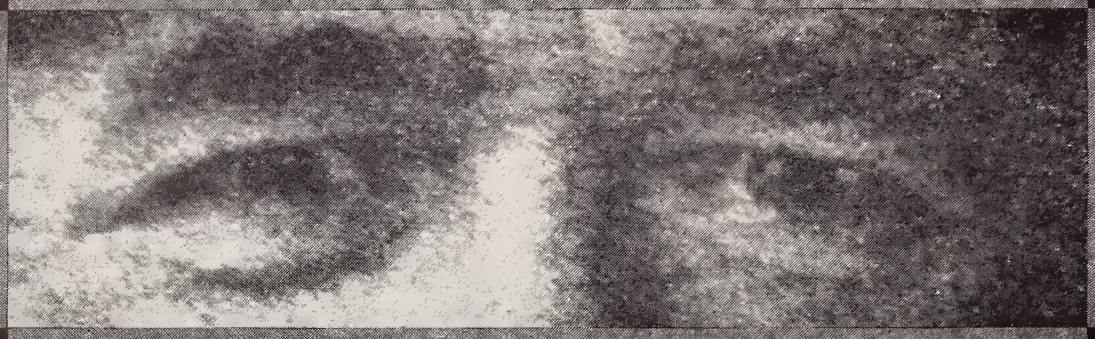
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Source—Hyman, M.: Some Aspects of Psychiatry in General Practice, GP *16*:83 (Oct.) 1957.

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*Bauer, H. G.; Seegers, W.; Krawzoff, M., and McGavack, T. H.: A Clinical Evaluation of Ectylurea (NOSTYN®), in press.

dosage: *Children*—150 mg. (½ tablet) three or four times daily. *Adults*—150-300 mg. (½ to 1 tablet) three or four times daily.

supplied: 300 mg. scored tablets; bottles of 48 and 500.

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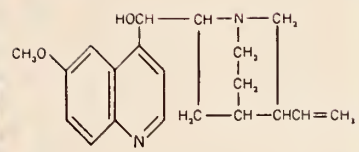
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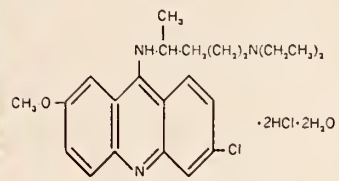
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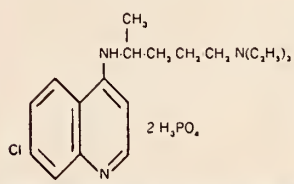
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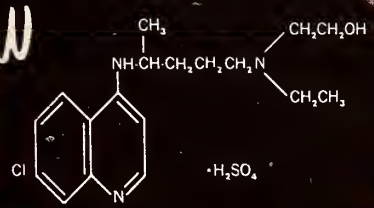
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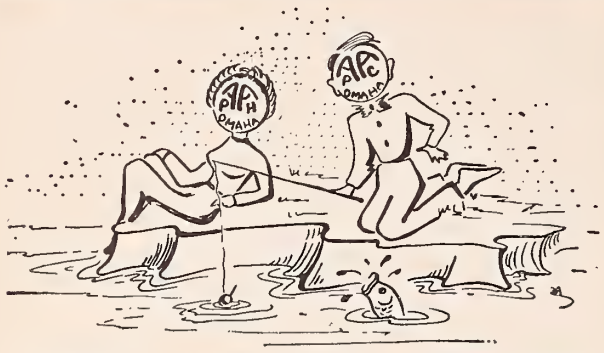
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*Finnerty, F. A., Jr.: New York State J. Med. 57:2957 (Sept. 15) 1957

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references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

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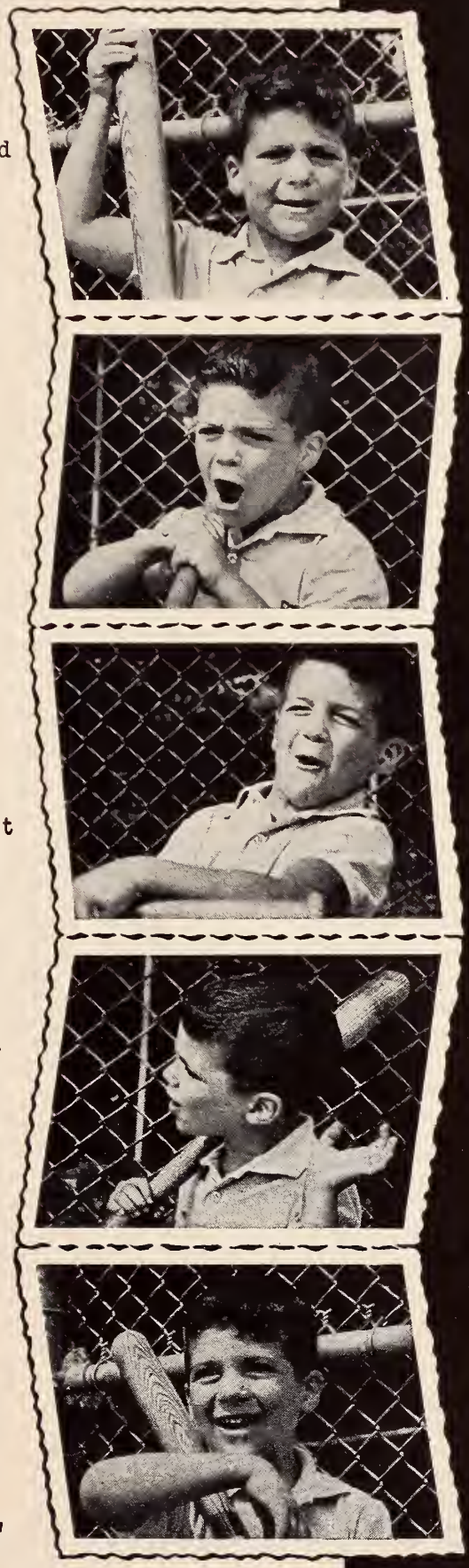
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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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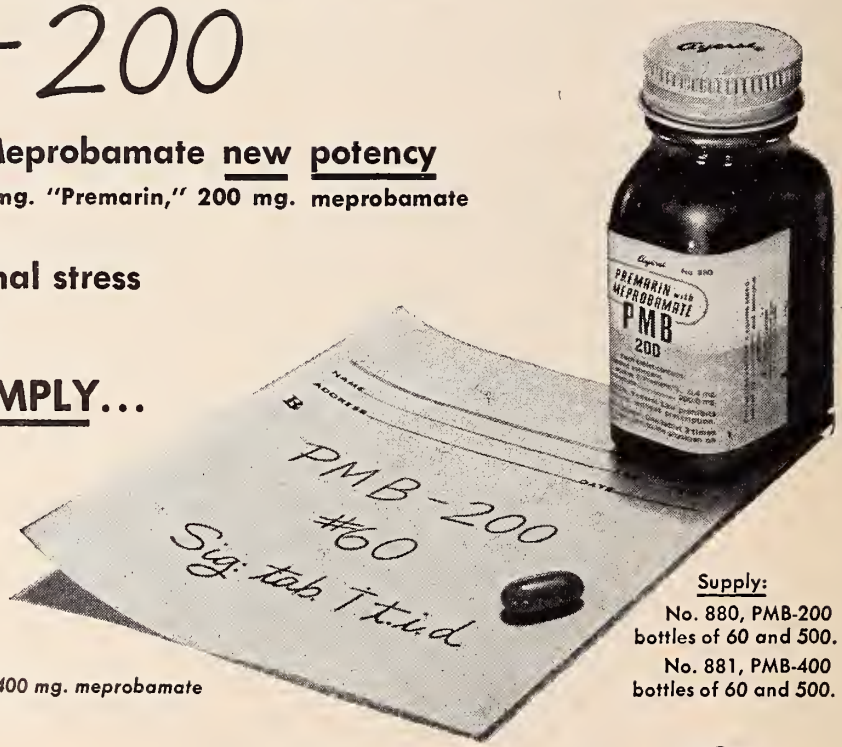
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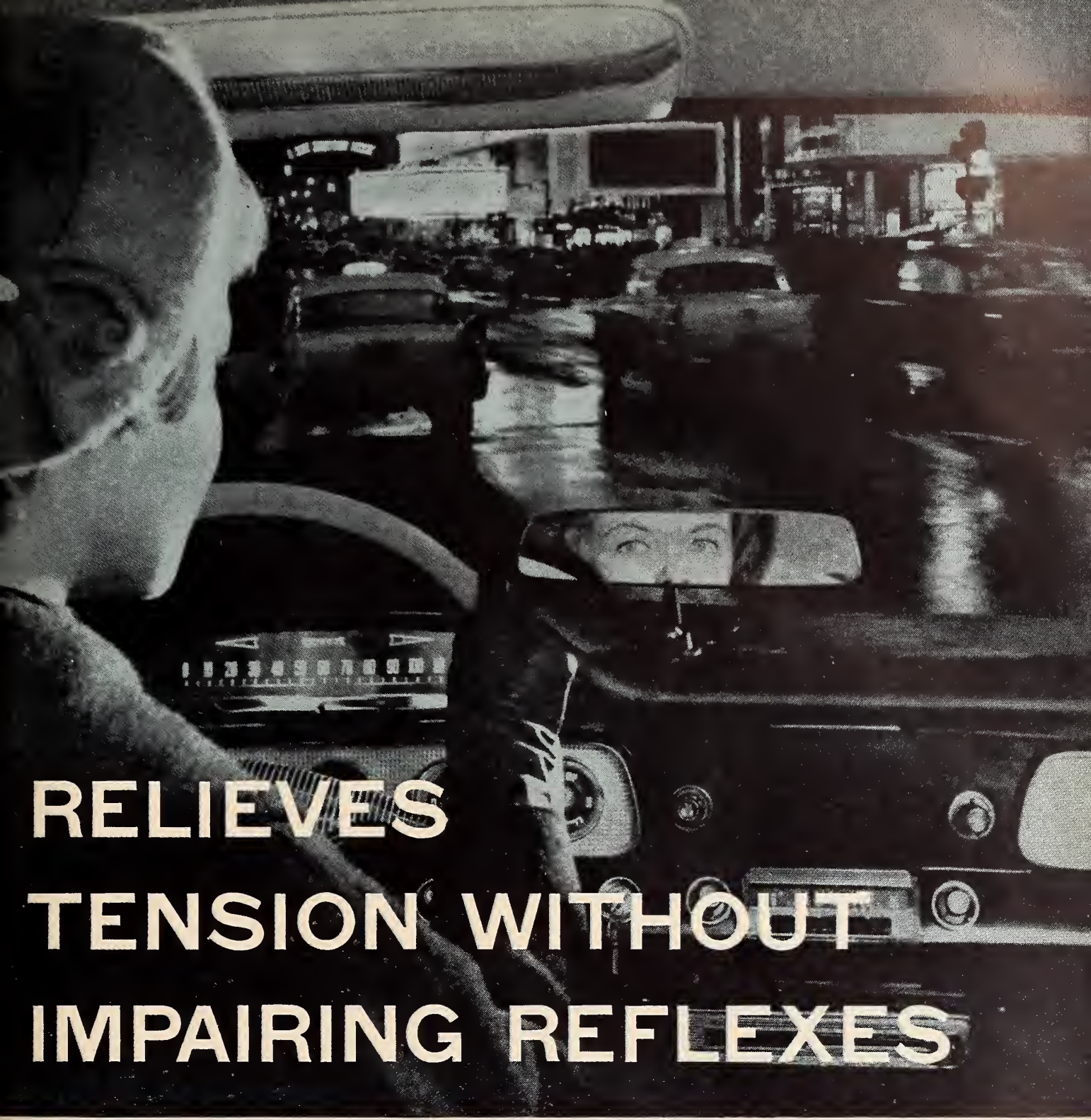
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Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Ann. New York Acad. Sc. 67: 701, May 9, 1957.

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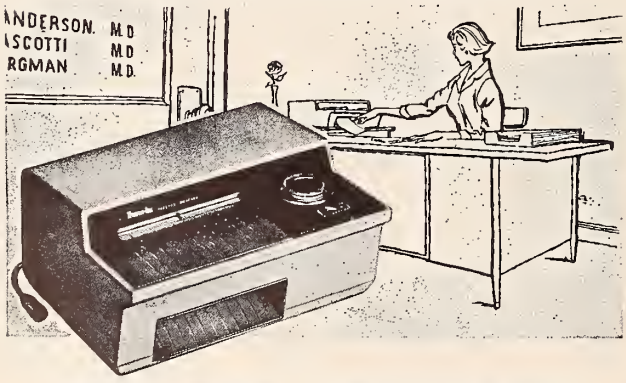
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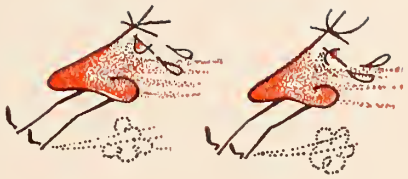
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running noses . . .



and other hay fever symptoms

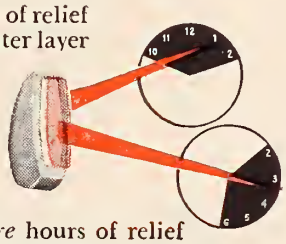
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first—3 to 4 hours of relief from the outer layer



then—3 to 4 *more* hours of relief from the inner core

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Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

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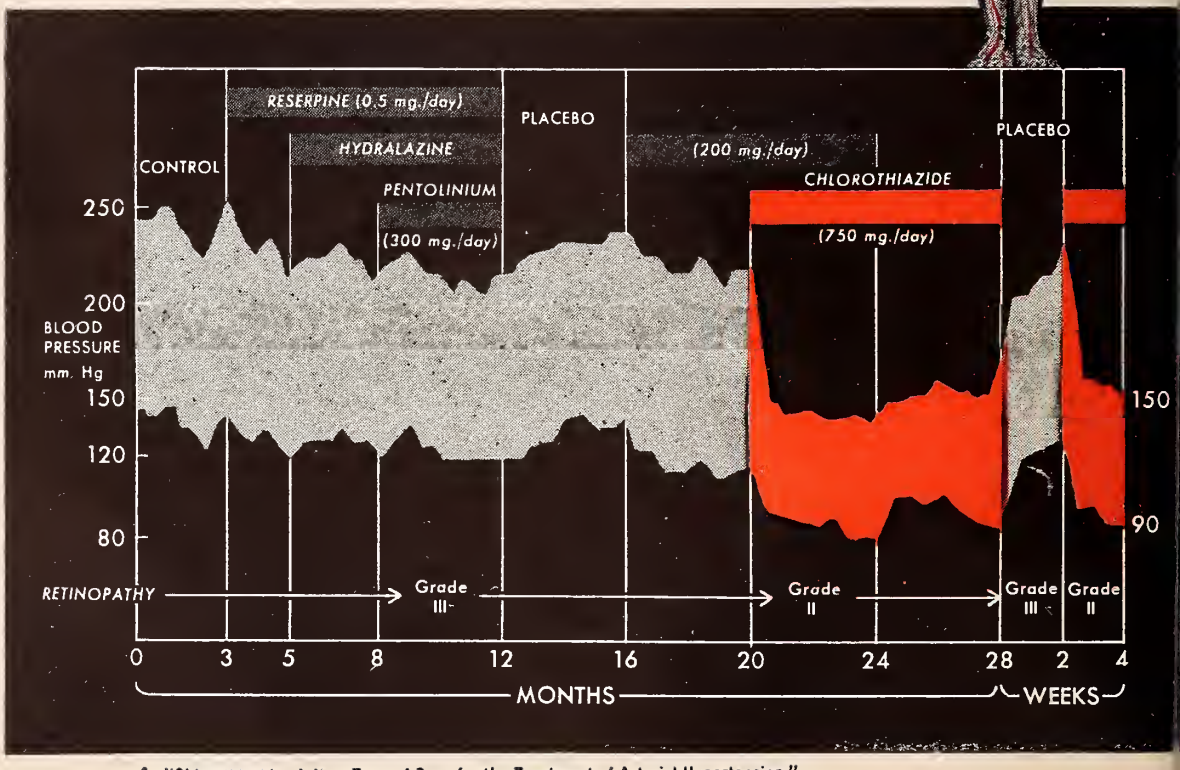
Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

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Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. 166:137, Jan. 11, 1958.

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In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 1957.

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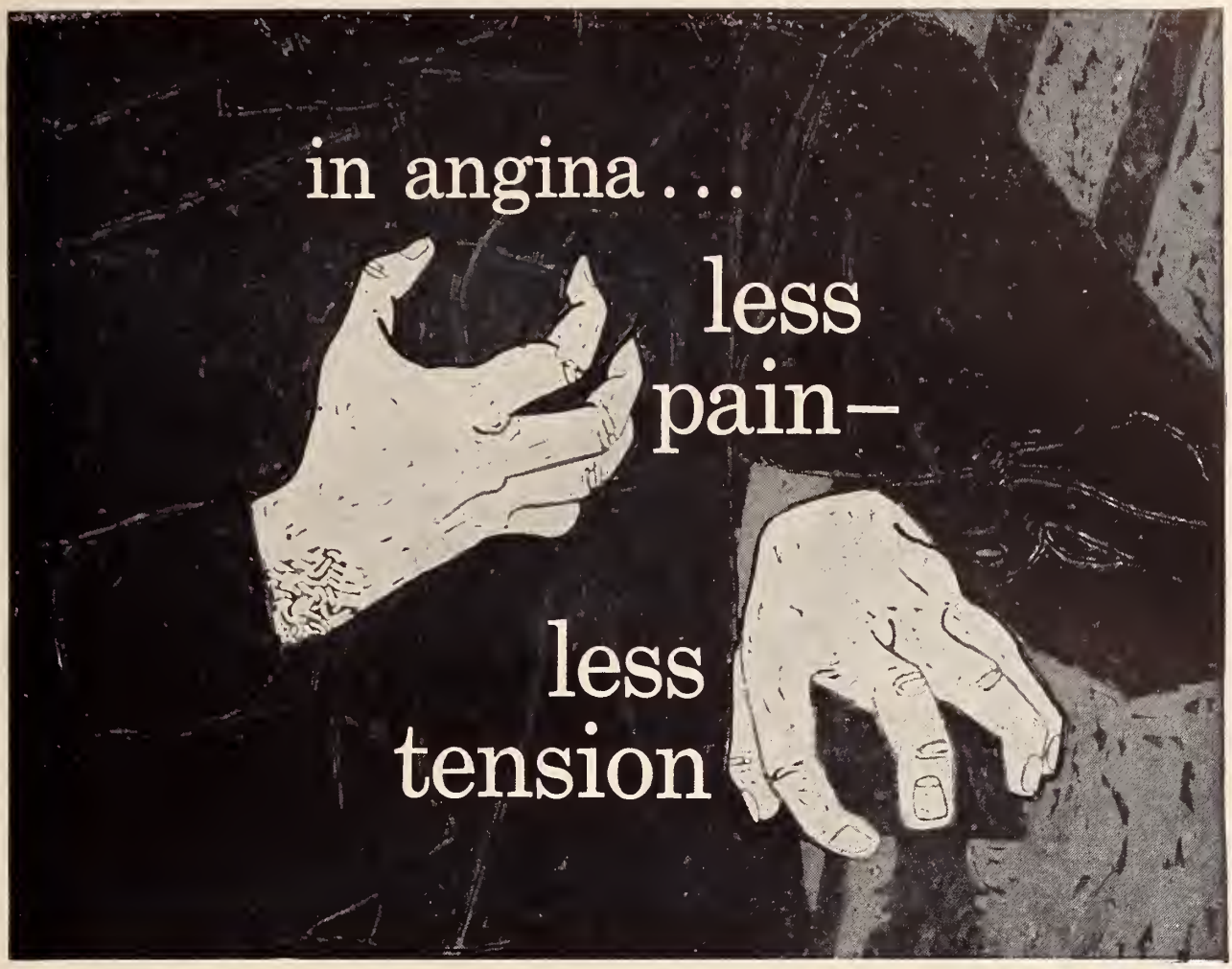
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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
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Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

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ARIZONA MEDICINE
Journal of Arizona Medical Association

VOL. 15, NO. 7 JULY, 1958

Original Articles

THYROID PHYSIOLOGY AND BRAIN FUNCTION*

Henry J. Koch, Jr., M.D.**
Tucson, Arizona

As ADVANCES in biochemistry continue to narrow the biological ring which once encompassed many independent and primarily descriptive disciplines, a new logic is beginning to thread its way through the often conflicting clinical observations of the past. Not too long ago "functional," as opposed to "organic" was considered to mean a disease complex which could not be demonstrated by the physical or chemical means at hand. It was applied most commonly in the field of mental health where profound psychic disturbances were unaccompanied by demonstrable brain lesions. Stanley Cobb had this to say about such a medical viewpoint: "I would insist that the old dichotomies 'functional and organic,' 'mental and physical' are not only wrong, but lead to bad habits of thinking, because they lead to static and obsolete ideas and do not allow for modern pluralistic and dynamic ideas of matter and structure. Physiology is the basis of clinical diagnosis and no physiologist would accept for a moment the clinical jargon that used the word 'functional' to denote 'psychogenic.' Anybody who stops to think realizes that no function is possible without an organ that is functioning and therefore no function takes place without structural change. Every symptom is both functional and organic. It is never a question of 'either-or.' "

In scientific jargon of the present era "functional" has taken on an entirely different and far more legitimate connotation. Today it means specific molecular structure with definite spacial or steric topography and the relationship of the particular structure to its ability to carry out a specific task. Into this well documented field of energy relationships known variously as "Enzyme Chemistry," "Dynamic Biochemistry," or simply, "Biological Oxidations," the hormones of the ductless glands have recently taken their first tentative steps. Evidence that at least some of them act as catalysts for enzyme systems is already incontrovertible. Thus, the diabetogenic hormone of the pituitary blocks the function of hexokinase, one of the glycolytic enzymes, while insulin quantitatively netralizes this effect both in vivo and in vitro.

Since this discussion will be limited to brain function and thyroid physiology, the past history of both might be briefly scanned with profit. The relationship between the thyroid hormones and the function of the central nervous system has been a source of considerable speculation for the past several centuries. Paracelsus, one of the first physicians to document his observations, wrote of "goitrous fools" sometime during the 16th century. Many centuries before him, Hippocrates elaborated his still relavant theories of the nature of mental illness. He considered the brain to be a gland which secreted substances for distribution to the other organs of the body. He wrote that retention of these substances by the brain could stifle its function and produce madness. He also believed that the decreased utilization of air produced mental

*(From the Southwestern Clinic and Research Institute and the University of Arizona, Tucson. Arizona).
**Former Scholar American Cancer Society

changes of a similar nature.

Because of the unavailability of precise analytical tools with which to weigh the exact status of thyroid function in a given clinical situation, the clinician, as well as the physiologist, has been led into areas where laboratory observations have so conflicted with clinical impressions that the ensuing dilemma has produced investigational stasis. For example, many schizophrenics and chronic alcoholics *look* and act like patients suffering from thyroid hormone deficiency, yet functional studies including basal metabolic rate, protein bound iodine, radio-active iodine uptake by the thyroid, may all be within the normal limits found in healthy subjects.

With respect to the thyroid and its hormones, the fundamental biochemistry has been well established on clinical grounds at least since 1919 when Kendall first crystallized an active principle from extracts of this gland. Later when its chemical formula was established by Harington, its pedigree seemed beyond question. It was not until some 20 years later when Pitt-Rivers synthesized 3:5:3' triiodothyronine and Lardy gave the clue to its mode of action in energy systems that a revitalization was given to thyroid research. Even prior to Kendall's studies, the gross physiology of the thyroid had been thoroughly established through observations at the clinical level of thyrotoxicosis and myxedema. The mid-1800s found Curling describing the absence of thyroid tissue in cretinous children, characterized earlier by Platter as "simple-minded, silly, and infantile." In 1888 the Committee on Myxedema of the Clinical Society of London noted, throughout its report, the psychotic behavior manifested by patients suffering from severe hypofunction of the thyroid.

Of the modern students of thyroid function, with respect to brain function and behavioristic phenomena, Hoskins was the first to carry out a systematized study on institutionalized schizophrenics. Among the most significant of his observations were the following:

1) Approximately 19 per cent of the 200 patients studied showed clinical and laboratory evidence of hypothyroidism as characterized by normal blood oxygen tension, a negative basal metabolic rate well below the lower limits of normal, lethargy, cold intolerance, and changes in the skin and skin appendages characteristic of thyroid insufficiency.

2) A marked tolerance to dessicated thyroid extract was noted by him when he attempted to treat this group of patients with the replacement therapy available at that time. As much as 50 times the usual replacement dose was given by him to some schizophrenics with no resulting evidence of physiological activity.

3) A small percentage of the patients observed showed psychiatric evidence of improvement, but only when given many times the normal dose of dessicated thyroid.

Since the symptoms of schizophrenia which Hoskins noted could all be temporarily produced by subjecting normal individuals to periods of atoxia, he concluded that there must be a defective enzymatic system in the cerebral cells of schizophrenics which renders them incapable of utilizing the oxygen of the blood in an efficient manner. In this way localized intracellular anoxia occurs and the psychical symptoms of schizoprenia are produced.

By means of the modern analytical techniques several more modalities of thyroid function in schizoprenics have been brought to light:

1) The protein-bound iodine in the blood of these patients does not differ significantly from the normal.

2) Radioactive iodine uptake by the thyroid gland of schizophrenics is somewhat increased over the levels noted in normals.

3) The thyroid gland of the schizophrenic does not respond to thyroid stimulating hormone of the pituitary with the increased activity noted in normal controls.

As Hoskins hypothesized, the defect in thyroid function in the schizophrenic must occur at some point beyond the thyroid gland itself. The hormone is produced, but, for one of several possible reasons, it is not permitted to function at its normal target site.

The first problem confronting the investigator is that of the basic influence of the active principle of the thyroid on cellular function. According to Lardy and Maley, the ability of any biological cell to do work is controlled by the availability of high-energy phosphate. This availability of the energy-rich radical is, in turn, regulated by the thyroid hormone or one of its metabolites. In vitro studies of oxidative phenomena have placed the site of this catalytic effect in the mitochondria, the enzyme-rich subcellular

fractions of the cytoplasm. This hypothesis, while confronted by many diserepancies when in vitro actions are compared with in vivo effects, has much merit when the known physiological effects of thyroid hormones are eompared with the universal principles of biologieal oxydations. The two common and fundamental properties are:

(1) The increase in oxygen uptake by all cells, whatever their origin, when influenced by the thyroid prineiple, and,

(2) The production of a quantum of energy when adenosine-triphosphate is catabolized to adenoisinediphosphate with the release of one "high energy" phosphate group.

Since adenosinetriphosphate is also eonsidered to be present in all living cells and has been found to be associated with the energy meehanisms of such diversified phenomena as musele eontraction, eleetrie discharge, light production (in fireflies) and synthetic biochemical reactions too numerous to describe in detail, the hypothesis that the active prineiple of the thyroid acts as a catalyst in the transformation of this ubiquitous substance is at least logical if not fully established. To quote Dr. Ernest Baldwin: "If the breakdown of adenosinetrophosphate (ATP), is at the baek of energy-consuming processes as a whole — and there is every reason to think that it is — it follows that the amounts of ATP present in living tissues are comparatively minute, fresh supplies of this substance must be constantly forthcoming from somewhere or other. And, in fact, the formation of ATP seems to be practically the sole aim and object of catabolism as a whole."

The metabolism of the tissues of the central nervous system is peculiarly susceptible to changes in the concentration of oxygen and carbohydrate in the circulatory transport system. The brain stores no carbohydrate nor is it able to utilize to any degree, catabolic pathways other than that of complete oxidation of carbohydrate for energy production. Unlike muscle it is unable to carry on function by anaerobic or fermentative glycolysis with the temporary production of laetic acid and "oxygen debt." While the brain has no defense against a deficiency of these vital energy building substances, it is able, through a mechanism known as the "blood-brain" barrier to regulate its own environment and guard against concentrations or circulating hormones or metabolites which, while physiological in relation to other organ-systems, may aetually be toxic to the brain. This barrier, while still poorly understood, has become of paramount importance in the evaluation of the new group of ehemicals which have been found to produce hallucinations, not unlike those of schizophrenia, in humans as well as in animals. A second line of defense peculiar to the brain is the unique phospho-lipid material whieh forms the protective membranes of the eells and of the mitochondrial particles within the cells. It is at this membrane barrier that the volatile, fat solvent, anesthetic agents are thought to have their site of action. By altering cell membrane permiability through a rearrangement of the maeromolecules of this colloidal eomplex, these agents are believed to produce a loealized intraeellular anoxia and thus cause a pause in the energy metabolism and therefore in the electrieal activity of the cell. The barbiturates, on the other hand, are believed to produce their entirely similar result by stopping the eatabolism of glucose even though suffieient oxygen to carry on the process is at hand. Some indirect evidence for the peeuliar progession of the symptoms of anesthesia from the higher centers of "cerebration" down to the areas of "vegetative" function is found in the eorrelation of phospholipid eoncentration with sensitivity to anesthetie agents. In these studies the cortical cells were found to contain the highest concentration of these eomplexes, and the hypothalamus, the least.

In evaluating the effect of the thyroid hormone on the eentral nervous system, it is necessary to probe the pathways from production to target site and weigh each factor along the way.

Production: It has been demonstrated many times over that the thyroid hormone is not essential for life though it is essential for living. This is most dramatically seen in the cretin where deprivation of the thyroid hormone begins in the embryonic state. In this condition all modalities of growth — both mental and physical — are reduced to a minimum and unless replacement therapy is started at an early age, a dwarfed idiot results. In the adult, cessation of production of the thyroid hormone results in myxedema. The best documented cases of complete myxedema or athyreosis have been medically produced in patients with cancer of the thyroid. Total removal of the thyroid by surgery

is followed by radioactive iodine administration and all cells which concentrate iodine are destroyed. Rawson and his staff have studied some 60 cases of thyroid ablation. Of this group, only four developed frank psychoses which rapidly disappeared with replacement therapy. Careful psychological investigation, however, revealed that the majority of the patients gave evidence of minor mental aberrations.

Among the biochemical changes in brain function which have been reported in myxedema are a decrease in alpha activity in the electroencephalogram and a 30 per cent decrease in cerebral oxygen and glucose consumption. In addition there is an increase in the threshold at which seizures occur with eleetric shock therapy. Conversely, induced hyperthyroidism in the athyreotic patient will alter all of these parameters in the opposite direction and the degree to which this occurs is, within limits, a direct function of dosage.

Among the clinical symptoms of myxedema which may be related to central nervous system function are a marked intolerance to morphine and to volatile or barbiturate-base anesthetics.

Thyroid Hormone Transport: During the past year or two a new factor has been added to the list of conditions which affect thyroid physiology. Electrophoretic studies combined with extractive procedures have revealed that thyroxine forms a strong bond with a plasma globulin which migrates in the interalpha region of the electrophoretic pattern. This globulin has a thyroxine binding capacity in the neighborhood of 0.5 micrograms/milliliter. When additional thyroxine is added beyond the binding capacity, it forms a loose bond with albumin as a secondary binding site. Studies with other thyroxin analogs reveal the specificity of the thyroxine-globulin bond. Triiodothyronine, for example, binds loosely throughout the plasma protein fractions. When thyroxine is added to such a system, the triiodothyronine in the interalpha zone is removed and replaced by it. This factor must be considered when the speed with which a given thyroid analog reacts with the peripheral target sites is under observation.

There is evidence to show that an increased thyroxine-binding capacity occurs in pregnancy and in specific disease entities where an increase in the plasma globulins are found. Thus, it is entirely possible that an increase in thyroxine secretion may take place without an increase in thyroxine effect at the target site. The increased binding capacity of the plasma would keep the hormone from its site of action. Under these circumstances, the diagnostic studies of thyroid function in common use would show a paradoxical increase in radioactive iodine uptake by the thyroid gland, an increase in protein bound iodine and a relatively low or normal basal metabolic rate. While a decrease in the plasma thyroxine-binding capacity has not been shown experimentally, it is certainly theoretically possible. One could expect, under these circumstances, a low protein bound iodine concentration and an increase in oxygen consumption if the rate of thyroxine secretion were normal or slightly increased.

The Metabolism of Thyroxine by the Peripheral Cells: There is general agreement that while insignificant amounts of 3:5:3' triiodothyronine, 3:3':5' triiodothyronine and 3:3' diiodothyronine are synthesized and secreted by the thyroid gland, thyroxine comprises well over 98 per cent of the total thyroid hormone secreted. Of this group, only thyroxine and 3:5:3' triiodothyronine have been found to have significant physiological activity. The greatest controversy at the present time concerns the activity of the catabolic products of thyroxine and 3:5:3' triiodothyronine at the target sites. Since their discovery a few years ago, the analogs of thyroxine have run the gamut from extreme physiological significance to unimportant reflections of the break down products of thyroxine, and back. Little correlation can be found between in vivo and in vitro activity of a given analog. Indeed, changes in the in vitro activity of a given analog can be demonstrated when fresh mitochondria are tested against pre-aged mitochondria, even when both are aliquots of the same tissue homogenate.

The natural analogs of thyroxine can be divided into two general types: (1) Those in which one or more of the iodine radicals have been removed and (2) Those in which alterations in the alanine side-chain have taken place. With each alteration in the thyroxine molecule, changes in potency and speed of action occur. Of the many natural and synthetic analogs of the thyroid hormone only 3:5:3' triiodothyronine (T-3) has been shown to have a greater potency (weight for weight) than thyroxine. In addition to being

approximately five times as active as thyroxine (T-4), it has a rate of reaction which is four to five times as fast.

While studies have proved the ability of most of the organs of the body to deiodenate T-4 to T-3, the studies of principal importance to this discussion were carried out by Tata on brain tissue preparations. He clearly demonstrated the ability of fresh brain tissue slices or fresh brain homogenates to deiodenate T-4 to T-3, under aerobic and anaerobic conditions at a physiological pH. In addition, deamination of the side chain to form either the propionic or acetic acid analog was demonstrated. One must therefore assume that the brain as a whole has the ability to metabolize endogenous thyroxine to 3:5:3' triiodothyronine though the question of whether all of the cells of the central nervous system or just specific areas can do so has yet to be demonstrated.

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INTERNATIONAL CONGRESS ON OCCUPATIONAL HEALTH

THE 13th International Congress on Occupational Health will be held in New York City during July 1960, it has been announced by Dr. Leo Wade, medical director of the Esso Standard Oil Company, who is chairman of the organizing committee for the congress.

The theme of the 1960 congress will be prevention, rather than cure, of occupational injury and disease. Program participants from many lands will report on their experiences, the find-

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PREVENTIVE CARE OF INFANTS AND CHILDREN*

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Seven Problems of Adolescence: Emotional Aspects

WE ALL HAVE marveled at the extreme changes in many individuals from erratic, destructive, nonsense behavior to stable, reliable and creative adult behavior. This, however, is not always the case. While adolescence may afford a great opportunity for a creative thrust toward fulfillment, it may intensify the hostile orientation toward destruction and denial. If this hostility is turned outward, in infancy we say the baby is spoiled; in childhood, a behavior problem; in adolescence, a delinquent; in adulthood, a criminal or immoral person. Hostility turned inward at all ages causes anxiety, withdrawal, hypochondriasis, psychosomatic illness, failure or accident proneness, or depression. None of these manifestations occur in people who are still loving.

Problems of the adolescent for the most part are not unique to that age. In general, they were there before adolescence and, if unresolved, will continue into adult life. What is unique to adolescence are the external and internal forces which bring problems to an intense focus at this time of life. The outside forces afford frameworks compelling or impelling his emancipation as do his internal drives. This new era of self assertion that is moving the youngster from the childhood to the adult level is with limited experience, and is taking place in a society that is highly critical while suddenly allowing a frightening amount of freedom. Thus errors in behavior so disturbing to the youngster and adult society may be expected. These errors, if they are worked through, act as a tempering influence leading to stable, reasonable adult behavior. These mistakes initially are only errors until the hostile neurotic distortions become a design of life.

Let us consider the matrix for background development that will reduce the problems of adolescent emancipation and maturation. It is this matrix that largely determines which of the aforementioned routes along life's way the adolescent will follow into adult life. One route is the continued expression of the youngster's inborn nature to express his good feelings or love. This is naturally expressed toward self, fellowman and the universe. It is exemplified from birth by a natural outreach into life. It is living out the fact that one is born with all the equipment one needs to reach out into a universe that has everything in it, that one needs to express and fulfill life. In both the dependent and creative sense it manifestly would seem to illustrate the fact that we were born to love and that our emotional fruition depends on it. Indeed it does! It is only when the outreach, or love, does not have opportunity for expression that frustration arises leading to the distortion of our loving nature. This distortion moves from aggression, — the instinctive positive orientation toward fulfillment, — to hostility and ultimately hate when the aggressive attempts to move into life are blocked and cannot be expressed. It is only then that the positive, creative, fulfilling orientation that moves one into life with good feeling is twisted into a negative, hostile, denying orientation. Emotional illness begins where the expressing of love leaves off and no one was born emotionally ill. Theoretically, and in the light of today's understanding to a great extent practically, emotional illness is preventable (1, 2, 3, 4, 5), if we were to put into the stream of life the understandings available to us as we have done to such a great extent on the physical side of health.

How do we miss the boat?

1. Conformity versus Harmony

Perhaps we begin in the cradle when the concept of the preciousness of self is distorted. An infant gives himself the dignity of being worthy of self expression and uses all of his resources to move into life. He struggles to harmonize his own nature to the verities of the universe. For example, he expresses it by attempting to eat and not eat, according to inner stimuli and acting as if they mattered, or more precisely that he matters. This movement toward harmony with the universe is a loving act. Too often in our soeiety we make such behavior dangerous by demanding conformity to society in contrast to harmony with nature which indicates when he does and does not wish to eat. It is by way of saying that the individual's dignity and natural instinctive needs must be sacrificed on the altar

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of the distorted needs of society. It would seem to say that right is inherently determined by society rather than by God through nature. Would it not be more reasonable to give dignity to both the unfolding child and society in their mutual interest? Society would seem to have conformity as its major goal, in spite of the equated hostile feelings. Such a framework would seem to say that to lovingly harmonize one's nature to the nature of the universe is bad.

II. To Love or Be Loved

This leads us to a second consideration which is equally distorting. Our insistence upon conformity versus giving support to harmonizing, in effect demands that we do what we do as a way of being loved rather than as a way of loving. It says — win love or, perish rather than love and live. It says — eat to be loved rather than eat as an expression of the love of life. It says — the child's needs do not matter but those of all others do. In contrast to harmonizing behavior, these conforming acts are a threat because they may not satisfy those who are making the demands and who are denying the child's own needs. It is paradoxical in a Judo-Christian society that we teach that we must do what we do as a way of earning love and that survival is dependent on being loved rather than loving. Indeed, physical survival is dependent on being loved but emotionally we die if we do not love.

Parents and society seem to say that an act is right just because "someone" says so, rather than that one may advantageously carry out the act because it makes sense. Obviously making a statement does not make a thing true even if made by an interested parent. But in our time many children are conditioned to react with hostile behavior on the basis of what people say. However, they need to be supported in expressing love. The action then takes place because it is inherently advantageous rather than just because someone says so.

III. Rote Teaching versus Understanding

We attempt to teach a code which is of little meaning to the child rather than to aid him in discovering the truth behind the code. This tends to block the outreach into life (loving) or the quest for its meaning.

This quest is the essence of the process we call learning. Our rote teaching of codes interferes with learning. This is true with creative learning of general facts as well as of moral truths. The best teacher, paradoxically doesn't teach but simply affords frameworks for learning. Inherently the stimulus for the learning quest is within the learner. If the stimulus (or instinct) is not stifled by denying its inner existence, it remains very potent throughout life. The teacher or parent is not the stimulus but is simply the learner's opportunity. This inner stimulus for learning will have more to respond to in frameworks made exciting by other learners including "teachers" who are finding life to be exciting. As a student we prefer to sit in classrooms with teachers who find questing interesting. They are not stimulating; they are themselves stimulated within and we become stimulated with them. It is then important that adults don't belittle by acting as if the stimulus were outside. Such an attitude would assume that children do not have intrinsic worth but only become worthy because of outside forces, another paradox in a society supposedly founded on the Judo-Christian philosophy.

Rote teaching of the code along with the teaching of fear of the consequences of deviation creates the illusion that the law is the end. Indeed it is the end if we only do what we do to be loved. It is the underlying truth, not the code, that is the means to the end of better loving. This leads to a feeling that living the good life must be through denial and that to be good, we must sacrifice, be frustrated, and deny our instincts.

Parents who best support learning live out their own lives with a focus on harmony. Obviously what they do is more supporting to learning than what they say. These parents willingly explain their own behavior and why they believe what they believe and do what they do. In short, they take a stand and the youngster knows why. They also, in a reasonable sort of way, consistently define end points for their growing children and explain why they set them. They expect reasonable behavior from the children just as they expect to behave sensibly. The end points are reality based by limiting only behavior that is destructive to the child, to others, or to things. If not destructive, they rightly accept and permit the behavior. These parents who behave out of the love of life are aware of the verities of life but have little need to expound the codes. Codes, if reasonable, are seen as a statement of truth that, if understood and lived by, afford loving expression of life. They are not

seen as devices to restrict but as a means of fulfillment, not laws to conform to but opportunities to harmonize with.

IV. Self Interest versus Selfishness

Parents tend to see the child as a selfish individual who must be remade. He then is treated as if his very nature is oriented toward self and against others. In reality he is naturally orientated toward fulfilling his own life with others not against others. He is not selfish to the exclusion of others; he is self-interested to the inclusion of himself. We err in confusing self-interest with selfishness. We are teaching many to feel guilty for looking after their own interests. This guilt over the natural zest to express life is then distorted, as mentioned earlier, into an emphasis on being loved rather than loving. This deludes one into thinking that we must try to do for others to the exclusion of ourselves. The crumbling ego then seeks support in having others express love to prove that ones acts are "unselfish." Ultimately, then, acts done purely out of instinctive self-interest are seen by the "doer" as if they are done only for others. This self-sacrificing, self-denying approach to life interferes with fulfillment and total loving expression. In reality by our very natures we instinctively, out of self-interest, act in behalf of others and ourselves as a way of expressing love. Self-interest inherently is served by a focus on self and other love. One cannot effectively serve others unless he has first looked to his own interest. To attempt to do so turns love into hostility even though disguised and unrecognized. It follows then that the parent who orients toward the child out of self-denying sacrificial duty sets up a hostile relationship. The parent who is aware of self-interest sees the relationship as one of mutual fulfillment and permits the child to recognize and fulfill his own natural needs. Both then seek to express their own lives in behalf of themselves and others. The self-sacrificing, self-denying parent sees himself as being totally unselfish and demands that the child be likewise. The unselfishness is fine but to deny self-interest is disastrous. Such people have been too self-belittling, too many areas of self have been denied and therefore are not functioning. They have suffered too much atrophy from the lack of self-interested outreach into life. Tragically the denial of self-interest cannot take place without loss of the sense of ones own dignity, a loss of love of self.

If a child is living in a loving environment the supporting framework maintains his outreach into life. Thus he continues to instinctively act unselfishly, though self-interestedly. Since it is an instinctive way of life he does not have to think to act in behalf of others unless others have denied his needs. If his natural (instinctive) needs have been denied he becomes frustrated and angry. He then struggles to get what he needs. Since he is taught to see self-interest as if it were selfish and bad, he trys to disguise from himself that it is for himself that he attempts to get what he needs. He rationalizes that all he does is for others. Now energy that could be used in loving self and others is partially wasted because he is working at being unselfish. If his outreach into life and his needs always had been accepted, he would never have needed to work at being unselfish that he might be loved. Rather, with much less effort, he would instinctively care for self and others as way of loving.

V. Id versus Superego

The id, or instinctive drives, probably were divinely instituted in the interest of survival. Yet much of our culture has been taught and continues to teach that these basic survival drives are bad, that at his instinctive core the child is born with a bad nature. It is an attitude that says in effect that since we are naturally evil that we expect nonsense behavior. Expecting it, we are apt to get it. If we expect something we have given it encouragement, we have given permission.(6, 7)

If it is true that instinctive drives are for the purpose of survival, it would seem paradoxical to call them bad. It is like saying that to want to live is bad. Perhaps the uncorrupted instinctive drives of the newborn baby are always oriented toward preservation of life and toward its fruition. Therefore, in so far as these drives are so used they are being used as a way of expressing love. In the nature of things perhaps that is the way they would always be used. However, in the distorted personality, the drives may be unwisely expressed in hostility.

The superego or conscience is one's concept of right and wrong and sometimes through man's teaching comes to be seen in conflict with the basic drives or instincts. Indeed by man's arrangements there is a conflict. The trained conscience, if not reality based, is at war with the

id. It is unlikely that basic drives ever seek expression against the reality based portions of our superego; however distorted man-made drives such as jealousy, competition and selfishness seek expression as if at war with the conscience but we cease to be talking about instincts when we speak of man-made drives. Inasmuch as we see instincts in conflict with what we believe, we see living the good life as being sacrificial rather than fulfilling. As a result we feel frustrated. When we are frustrated we aren't feeling good feelings, the opposite of good feelings is anger, so while in frustration, we are angrily conforming to our conscience; we are being hostily "good." Finally we come to feel that things equated with good feelings must be bad and that having fun is questionable. The feeling is developed that sacrifice and denial rather than fulfillment is virtuous.

The concept that we are born evil carries with it the connotation that morality is against our nature. It would then seem that it is not in the nature of man to be moral in a moral universe. Morality comes to be seen as an inconstant product of man rather than a God-given, discoverable, component of man. The great extent to which this belief is held can be tested by asking any group of young people what determines what is right and wrong, good or bad, sin or virtue and usually over 90 per cent will say that society determines it. Obviously to a great extent it is felt that morality is thrust upon youth as if for the benefit of others and as if things become moral just by somebody or a group of somebodies saying so. Society and parents tend to fortify against immoral behavior through guilt. Guilt is simply the fear of the consequence from God and man, that we teach, regarding moral deviations. Response to guilt is reactive behavior stemming from fear and its associated anger at self and others. Akin to this guilt which is encouraged is another man-fostered approach to wrong-doing, namely righteous indignation. This is not the healthy approach of love but the emotional-illness producing phenomena of hate. This is so, even if we attempt to do what is probably impossible and hate the deed and not the doer. With such a philosophy we fight the dark instead of loving the light, moving into it, and giving others a hand in doing so, too. It is a hostile condemning and judging approach rather than a loving and evaluating one. It mobilizes further hostile acting out in the person whose unwise ways we have judged and condemned. Such an approach wastes hostile energy against evil that could be lovingly used for good. No wonder our youth are confused and hostily oriented, some expressing their anger by withdrawing and others by attacking. Then we tell them their nature is in conflict with moral law. Then we emphasize the importance of sacrifice and denial that virtue may be attained and love of God and man won. We imply that even the verities in the universe are against them as we act as if parents and society determined what is right. Then we teach them that they must fight for the right via "righteous indignation." This is one way of overcoming guilt feelings. Thus with such a format if the goal of acceptable behavior is attained the individual is hostily being well behaved. This is a complete about-face from behaving reasonably as a way of loving. How could this happen out of a Judo-Christian heritage? Maybe we have missed the point.

Let us look at it afresh. Maybe the nature of our inborn instincts do not orient us to nonsense behavior. Indeed if uncorrupted we instinctively move toward self-fulfillment with others out of love rather than hate. Also it is only apparently true that man determines what is moral. Parents and society determine what we think is moral. This is the taught part of our conscience and the part that if deviated from, mobilizes guilt and if others deviate, mobilizes in us a judgemental "righteous indignation." But having been taught that a certain thing is moral does not make it so. If it is true, it was so before we taught it, therefore morality did not come from society. What seems more likely is that morality is a God-given part of the universe and man. Thus the verities in the universe and man are mutually sustaining and in the nature of things man is not at war with himself. It is only when he is not in harmony with his natural goodness that there is war between his instinctive nature and his moral concepts. Not all of the conscience is made up of concepts of right and wrong by teaching. The more healthy way is to discover moral truth through guided experience and through simple identification with reasonably behaved parents. Then one, through understanding, acts reasonably out of love rather than reacts against evil because of guilt. One can be aware of reasonable and unreasonable ways of behav-

ior through understanding without the presence or absence of the feeling of guilt. So probably we could arrive through understanding at a reality based superego so that we might discover our real moral nature. The newborn may well have arrived with the instinctive equipment to questingly move toward discovering his own moral nature and toward putting it into loving action, thus there would not need to be conflict between basic drives and conscience. That would be heaven within and on earth, if universal. Parents then would be interested in helping the child behave well, out of everyone's interest in self and other love. They would not be interested in simply stating a law as if they, via society, determined right and wrong.

VI. Denied Dependence versus Dependent Support

Dependence is a term used to express areas of need that cannot be satisfied at the moment from one's own resources. All of us will always have areas of needfulness because of lack of native endowment, lack of opportunity to develop a native resource through denied creative expression and through being otherwise occupied. These dependent areas are a potential source of loving in that they give us a chance to reach out into life for help as a way of expressing good feelings. It is partly through dependent needs that other people matter to us. Through dependence we need each other. Yet our society, particularly its male component, does much to deny and belittle needfulness. Thus the adolescent feels that he must hide his need from his more experienced elders because he feels belittled by them. He dare not reach out for a helping hand, thus much support that might speed his emancipation is left unused and many opportunities for loving are lost.

VII. Creativeness versus Competition

Just as we have dependent needs so do we have creative ones. Creative needs spring from the areas of native endowment as they seek spontaneous expression. The stimulus for their expression naturally comes from within the individual and only unnaturally from outside. If the push comes from outside it denies the dignity of the individual being pushed and interferes with his self discovery or ego development. This is not to say that it might not be helpful for the outside world to dangle interesting bait. This gives the creative inner stimulus something to respond to. Much creative ability is blocked by anticipating needs before the involved individual has a chance to act. In addition we often deliberately block a natural creative interest, belittle it and try to rechannel it. We are saying, "don't love life," especially your own. We also interfere by pushing, which mobilizes rebellion and fear and inefficiently wastes time in lesser areas of capacity. Nature's way of motivation is via natural curiosity. Curiosity instinctively mobilizes and utilizes creative capacities. These are unique to the individual. They reach their maximum expression in individuals who have continued to use their loving capacities. When curiosity is squelched and creativity stifled motivation is proportionately diminished. This is done in many ways particularly in early childhood. Mothers are busy and the child's creative interest is pushing him in many directions in rapid succession. Also the child evaluates danger poorly through inexperience. A proper stage setting decreases hazards and frustrations. Examples are fencing in yards, removing trinkets, locking drawers and the like. This decreases the necessity of parents to be negative about the child's interests in life. In turn many outlets can be safely arranged in the stage setting. If the over all setting encourages life's expression, necessary restrictions will not be personality distorting but will be supporting.

If curiosity as the natural motivation for life has been hampered, the child may become less productive. Parents, teachers, and others now bring to being a new man-made motivation called competition. Competition is born the moment the child is acting for the approval of others to the exclusion of his own interests. He is acting to be loved rather than as an expression of life. He acts out of the fear of disapproval rather than out of the job of self expression and loving. His acts become hostile rather than loving. The focus has moved from his own inner capacities and then their expression as a yardstick for accomplishments. The focus has moved onto others and their accomplishments as a yardstick for his performance. It is as if his native capacities have no intrinsic worth but are only of value relative to others. Conformity has been made the goal. The instinctive drive to harmonize one's inner creative capacities with one's fellowman and the universe is belittled. Any given accomplishment brought about through

competitive motivation, which is hostile, could have been brought about via curiosity-motivated creativity, which is loving. Either way, in a given individual, only native endowment is used. In competitive situations energy that might be used for accomplishment is partly dissipated in rebellion and fear of failure; fear because of the possibilities that others will excel and their own accomplishments will be unsatisfactory to parents or others setting the goals. Also there is fear of accomplishment which might mobilize competitive retaliation from those competed against. In creative situations the focus is only on self fulfillment with others not against others, therefore no creative energy is hostily dissipated because the very acts of achievement are simple expressions of the love of life with others. One group may be accomplishing a given thing competitively without good feeling and add to society's back-log of hate even though the accomplishment might have value. Another group might arrive at the same end creatively as an expression of their natural good will. The first group is made up of competitors, the other of colleagues.

So again we have interfered with the adolescent's emancipation if we have belittled his creative drives. Again we have moved him from a loving to a hostile orientation.

SUMMARY

In summary we see that the adolescent who is in trouble with himself or giving others trouble is an individual who acts out of hostility rather than love as he orginally did. This hostility is expressed by withdrawing and turning it on self or by turning it toward others and aggressively acting out. It only comes about by a series of denials of his nature with their belittling effects: (1) The demanding of comformity is a frustration of the instinctive attempt to harmonize his life to the universe and his fellowman. (2) This leads him into doing what he does as a way of being loved rather than as an expression of his natural love, as if his love didn't matter. (3) We further belittle by rote teaching, denying the expression of natural love through questing for the meaning of life and the universe. (4) We interpret self interest as selfishness thus belittle the importance of self and insist on sacrificial denial of self. (5) We belittle the importance of basic drives (instincts) by a rotely taught culturally induced superego and then teach him that his instinctive nature is bad. We further belittle by denying his ability to ascertain and understand the moral verities. This is fortified by acting as if he has no discoverable intrinsic morality which seeks expression in a moral universe. (6) We deny much of his natural dependence. This is belittling in that we act as if his personal needs don't matter and then (7) deny much of his creative ability, thus belittle, by acting as if what he has to offer is irrelevant and insignificant.

No wonder, with so much belittling of loving, that children approach adult life finding hostile feelings easier to express and less threatening than feelings of good will. Collectively then we have a society that finds it easier and more acceptable to hate than to love. This is a complete reversal, if it is true, that we were made by nature for love and to love. We must have been or why would we continue the effort when there are so many odds against it and why would we find fulfillment so gratifying when we attain it? The urge to lovingly express our nature seems to be a strong one, so strong that we often struggle to do so for years before finally giving up. It is good to feel and believe that nature is on the side of loving fulfillment and peace on earth and good will among men, even though cultural factors for a time distort a part of our natures. In the ultimate, nature with its goal of loving fulfillment will almost certainly more effectively infiltrate and express itself through collective mankind than will mankind collectively distort the natures of its individual constituents. If so the dream of Judo-Christianity of the earth becoming a kingdom of love will be attained.

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SCAR FORMATION AND FLAVONOID CATALYSIS

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INTRODUCTION

THE MECHANISM of wound healing and scar formation is of primary interest to a practicing surgeon. This paper is a report of a basic study in the laboratory, an attempt to work out some of the essential factors in this process which could then be applied clinically.

The influence of the various vitamins and other nutritional factors in the development of basic tissue has been under investigation by many scientists. Wohlbach(1) reported that the presence of an anti-scorbutic, specifically vitamin C was essential to the growth of collagen in the healing process. Szent-Gyorgyi(2) three years later, still in the preliminary work in the field, worked with a substance which he called vitamin "P," extracted from lemon juice and paprika. Other sources of the compound revealed in later efforts have been the peel of citrus fruits.

The relationship of these vitamins to each other, as well as their separate areas of influences has been the object of further study. The preponderance of the work has been directed toward vitamin "C," especially its importance in the healing process. (5)(7)(8)(9)(16) The emphasis in most of this investigation of one or both of these substances has been on their use in the treatment of capillary fragility.

Martin(11) has reviewed the work of previous investigators of the flavonoids and ascorbic acid. He began with Szent-Gyorgyi who reported an intimate relationship and that traces of ascorbic acid were required for citrin activity. He also repeated his own finding that a synergistic reaction existed between these compounds and that the bio-flavonoids act to potentiate ascorbic acid. A conflicting view had been reported previously by Field and Recker(6) who stated that ascorbic acid was the trigger compound.

Sokoloff(14) who has done much of the work on the subject has regarded the development of a test for the estimation of vitamin "P" to be the most pressing problem of the field.

Szent-Gyorgyi(12) has concluded that the flavonoids are useful therapeutically in other conditions besides capillary fragility.

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TERMINOLOGY

While there is some discussion as to the actual presence of vitamin "P" there is a general agreement in the use of such words as "flavonoids, flavones, and bio-flavonoids." This study is concerned with the place of the flavonoid compounds in the development of "scar."

The word "scar" by definition is a mark of the healed wound. "Scar formation" to this author means the "healing process."

"Vulcanize" is the writer's choice of a term to best describe the process of collagen development. Webster(15) defines it as a "process of treating rubber by chemical means to improve its strength, elasticity, hardness, etc.

MATERIALS

There are a number of chemical substances which are known to stimulate scar formation in the laboratory.(13) Those considered for this study were sodium morrhuate, quinine urea hydrochloride, sodium psylliate, and thuja, as aqueous solutions. A freshly prepared aqueous solution of sodium morrhuate was considered most useful. It is the standard on which the present work is based.

Test animals: Three sets of mature guinea pigs, 20 in each series of approximately the same age and weighing about 350 gm. each were used.

METHOD

Group I. The first series of normal guinea pigs on a standard laboratory diet was used for standardization purposes. A stimulating fluid of 2 per cent sodium morrhuate was injected subcutaneously. Daily specimens from successive animals were taken for fibroblast study for 10 days and then weekly for 10 weeks. This was done in the usual manner of removing tissue from the test area and preparing it for tissue sectioning by the colloidin method.

Group II. a. The second series of guinea pigs was placed on a vitamin deficient scorbutic diet to which the oil-soluble vitamin factors, A and D were added. After 30 days of this diet they were considered to be ready for testing purposes. Again a 2 per cent solution of freshly prepared sodium morrhuate was injected subcutaneously. Biopsy material was taken as before after the fourth day.



Figure 1. Collagen Development in Presence of Ascorbic Acid.

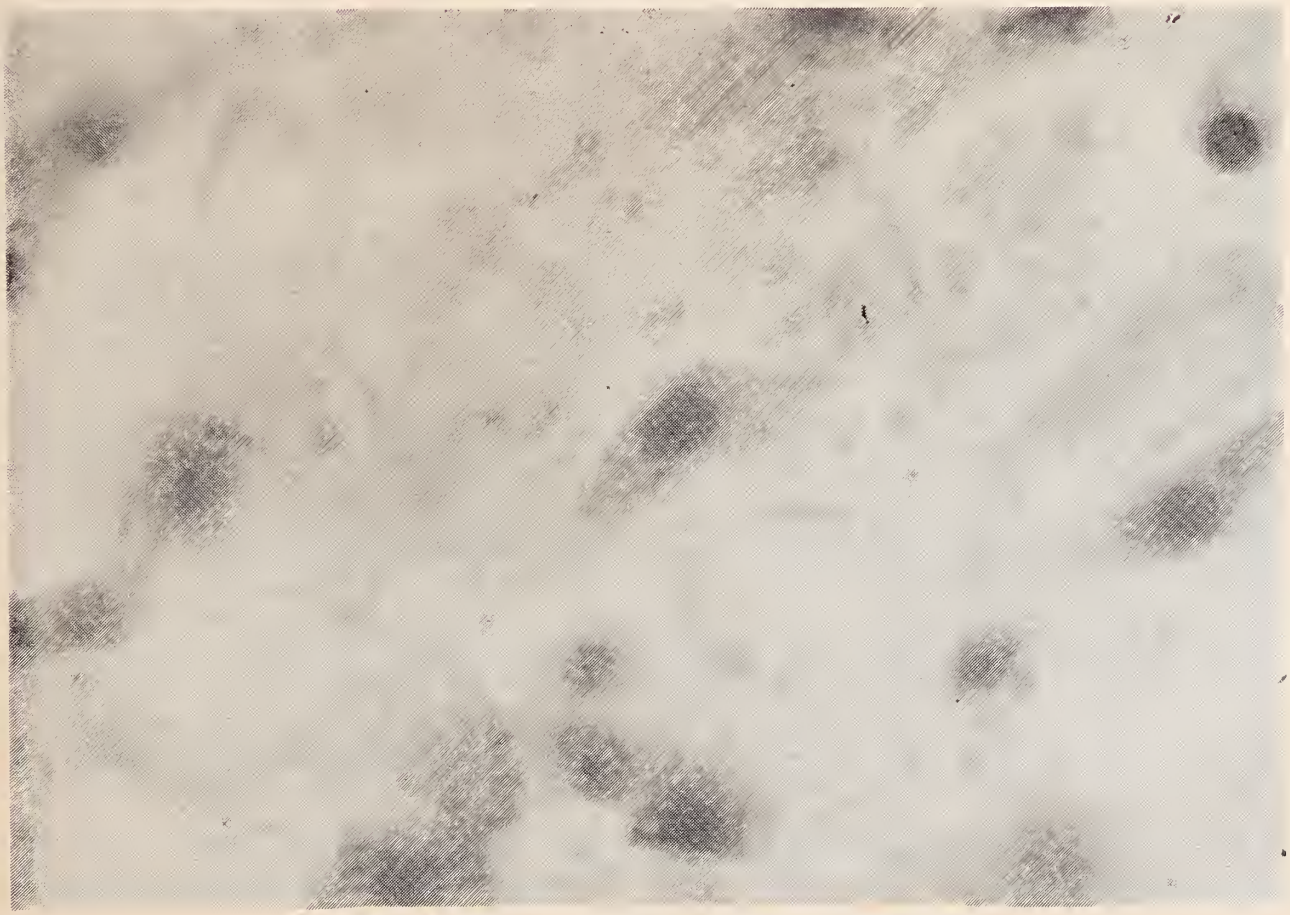


Figure 2. Collagen Development in Presence of Ascorbic Acid Catalyzed by Flavonoid Extract.

b. This group of animals was then placed on 100 mg per day of recrystallized ascorbic acid. Biopsy material was taken as before at daily intervals for four days.

c. These guinea pigs were then allowed free access to chopped oranges as an addition to their diets. Daily specimens were secured as in previous tests.

Group III. The third group of guinea pigs was injected with the stimulating fluid and was given 100 mg of recrystallized ascorbic acid on the 30th day of the initial scorbutic diet. After the fourth day biopsy material was taken as before. At that time a small quantity of water or ether extract of orange peel was used instead of chopped oranges and was fed to alternate animals. There was no effort to make this a quantitative study. Biopsy material was taken after 12 hours and at daily intervals thereafter.

RESULTS

Group I. In this group of control animals active collagen formation in the biopsied sections was observed on the fourth day. This observation concurred with the aforementioned work of Wohlbach. It was further noted that the formation of collagen and scar progressed smoothly until it reached conclusion at the sixth to eighth week when very little cellular activity remained visible in the test area which was densely scarred. This finding agreed with Tweedie and Long(3 who described the growth process as constant until the greatest wound strength was reached when it diminished rapidly.

Group II. a. The biopsied material from these deficient animals demonstrated that collagen had developed around the fibroblasts as expected. However, it was of a thin, watery consistency.

b. After the animals were given the recrystallized ascorbic acid their general condition showed little improvement. Specimens from successive animals indicated none of the expected changes in collagen, however. The work of Wohlbach referred to in the previous paragraphs indicated that rapid recovery should have occurred.

c. Specimens taken one day after the addition of the chopped oranges to their diets showed the collagen had become hard, firm and rubbery. Tissue sections confirmed the rapid increase in collagen density which appeared to have "vulcanized." The general condition of the animals showed equal improvement.

Group III. Test specimens taken within 24 hours after the addition of the extract of orange peel had been added indicated that typical rubberized, "vulcanized" mature scar formation had occurred. Both of the extracts, water or ether, appeared to be effective.

SUMMARY

The literature concerning vitamin C and the flavonoids is reviewed briefly. Three series of guinea pigs, one control and two scorbutic were investigated with regard to scar formation.

In all groups fibroblasts had developed when specimens were taken, prepared, sectioned and observed after the fourth day. In the second group the addition of ascorbic acid did not produce the expected formation of scar. It was necessary to add a flavonoid compound with the ascorbic acid to produce adequate speedy collagen development in both groups of scorbutic guinea pigs.

CONCLUSIONS

1. When the stimulating fluid is injected subcutaneously in a 2 per cent aqueous solution, large numbers of fibroblasts appear in the biopsied specimens from both normal and scorbutic guinea pigs after the fourth day.

1. Collagen development in scorbutic guinea pigs remains a loose disorganized process.

3. Stimuated tissue (scar) formation is not completed in laboratory guinea pigs with ascorbic acid alone.

4. Scar formation (collagen development) is completed in a matter of hours when a small amount of extract of orange peel is added.

5. There appears to be an accessory factor of a chemical nature present in orange peel. This factor is capable of catalyzing collagen vulcanization by ascorbic acid.

6. "Vulcanize" is the proper word to describe the process which improves the strength and hardness of collagen or the formation of scar.

7. Further laboratory investigation on a quantitative basis should be done to increase the knowledge regarding flavonoid compound activity in the area of wound healing.

Acknowledgement is made to the following firms in appreciation of their assistance:

Abbott and Company
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White Laboratories Incorporated
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(Continued from Page 485)

ings of both clinical and laboratory research, and on methods for the control of occupational health hazards.

This international meeting is consonant with President Eisenhower's state of the union message in which he said: "A program of science for peace might provide a means of funneling into one place the results of research from scientists everywhere and from there making it available to all parts of the world. There is almost no limit to the human betterment that could result from such co-operation."

As modern industry continually expands its uses of materials and technological techniques throughout the world, new occupational hazards come into being to take their places beside such old and well-known ones as arsenic, mercury, and lead. Radioactive materials, for example, are being used to an increasing extent in industry. Findings of research now in being which will be reported at this congress will supplement our present knowledge on the health effects and control of exposures to radiation in industry. Dr. Wade pointed out that these man-made hazards among industrial workers can and, in most instances, are being controlled with resulting benefits in health, increased productivity and economic well-being for vast segments of the world population.

Dr. Wade said that plans are already under way to provide meeting facilities, translation services and other accommodations for the several thousand physicians, nurses, industrial hygientists and delegates from more than 40 countries who will attend.

The New York meeting will mark the first time that this international group has met in the Western Hemisphere. All earlier meetings were held in Europe, beginning with the first one in Milan in 1906. The last previous congress was in Helsinki in 1957.

The congresses are sponsored by the permanent committee and International Association on Occupational Health of which Dr. Sven Forssman of Stockholm is president and Dr. Enrico Vigliani of Milan is secretary.

"This International Congress on Occupational Health will bring together in New York in 1960 many experts from all over the world to discuss and share important knowledge in this field, and will emphasize the fact that the science of health knows no national boundaries," Dr. Wade said.

The total value of the buildings, equipment, and other assets of hospitals in this country is now $13 billion. This is the equivalent of $8,100 per hospital bed, $590 per hospital admission, or $78 per person in the United States.

Although hospitals belonging to nonprofit organizations have only one-fourth of the nation's hospital beds, they own almost half the total hospital assets in this country. Such hospitals rank high in provision of special facilities and services.

Three-fourths of all hospital assets — nearly $10 billion — are invested in institutions providing general care or specialized services other than psychiatric or tuberculosis. Psychiatric hospitals, which provide nearly half of all the beds in this country, own only about 20 per cent of the total hospital assets.

Of more than $500 million spent on private hospital construction in the U. S. in 1957, an estimated three-fifths came in the form of voluntary contributions.

SCOLIOSIS

By Joseph C. Risser, M.D.
Pasadena, Calif.

PROBABLY NO condition in orthopedic surgery, if not in all medicine, has been recognized and treated longer than scoliosis or lateral curvature of the spine. Since the time of Hippocrates who considered scoliosis a fracture dislocation of the spine, a few more or less fundamental basic facts have been established which aid greatly in the understanding and treatment of scoliosis.

Scoliosis can be recognized early by the simple test of bending forward. If an asymmetry of the back persists in profile the scoliosis is structural, that is, it is a fixed bony deformity. If it disappears in the forward bend position it is postural and can be treated by postural recumbent exercises. Examination in this manner should be part of every examination, particularly of the growing child.

The question most frequently asked by the patient with a structural scoliosis is, "Will my curvature get worse?" Many men believed, as long ago as 125 years, that increasing scoliotic deformity was a deformity of childhood. During these years this relationship of increasing scoliotic deformity and the growing child has aroused much controversy. Even until recent years men have believed that the only requisite for an increasing scoliotic deformity was flexibility and that the scoliosis would increase until ankylosis had occurred.

With the use of x-rays allowing an accurate measurement of the curvature and the habit of measuring the patient's vertical heights, standing, sitting, and kneeling, information has accumulated proving that the scoliotic deformity is a growth phenomenon and will increase with vertebral growth.

During the past 20 years it has been found that completion of vertebral growth and cessation of scoliotic deformity were fairly coincidental with the appearance and development of the iliac apophysis. This information allows anticipation of completed growth before it really occurs. From the time of its appearance as a "capping" on the outer rim of the iliac crest to its attachment near the sacro-iliac junction, as seen in an AP view x-ray, vertebral growth will continue for from seven to 15 months during which time there is a cessation of increase in the scoliotic deformity.

With the clinical recognition of the scoliosis, height measurements, standing, sitting and kneeling, should be taken. To measure the deformity the following x-ray study should be made of each patient: A weight bearing view, standing and sitting, which would show the maximum amount of deformity and would also tell whether or not there is a difference in leg length. A recumbent anteroposterior view will determine the amount of gravity relaxation. Forcible correction of the deformity is usually determined as being twice the amount between the weight bearing view and the recumbent view. A lateral view of the spine is helpful in determining the bone integrity such as osteoporosis and vertebral fragmentation or delayed development. From the x-rays the presence and development of the iliac apophysis can be noted. A more rapid increase of scoliosis is noted with vertebral growth if the bone is of a poorer quality.

The curve is measured by the method of Ferguson[1], as follows: A line is drawn from the center of the shadow of the body of the vertebra at each end of the curve (the so-called neutral body) to the center of the body at the apex. The angle of deviation of these lines from a straight line (180 degrees) is measured. The vertebra nearest a nonrotated position is regarded as the end of the curve, and the most rotated vertebra is the apex. The limit or error by this method is from 3 to 5 degrees.

Since vertebral growth is not rapid during the years from seven to 10 or 11 years and more delayed in boys than in girls, there may be very little increase in the deformity during these years. With the rapid growth years, 11 to 15 years, we may expect an increasing deformity.

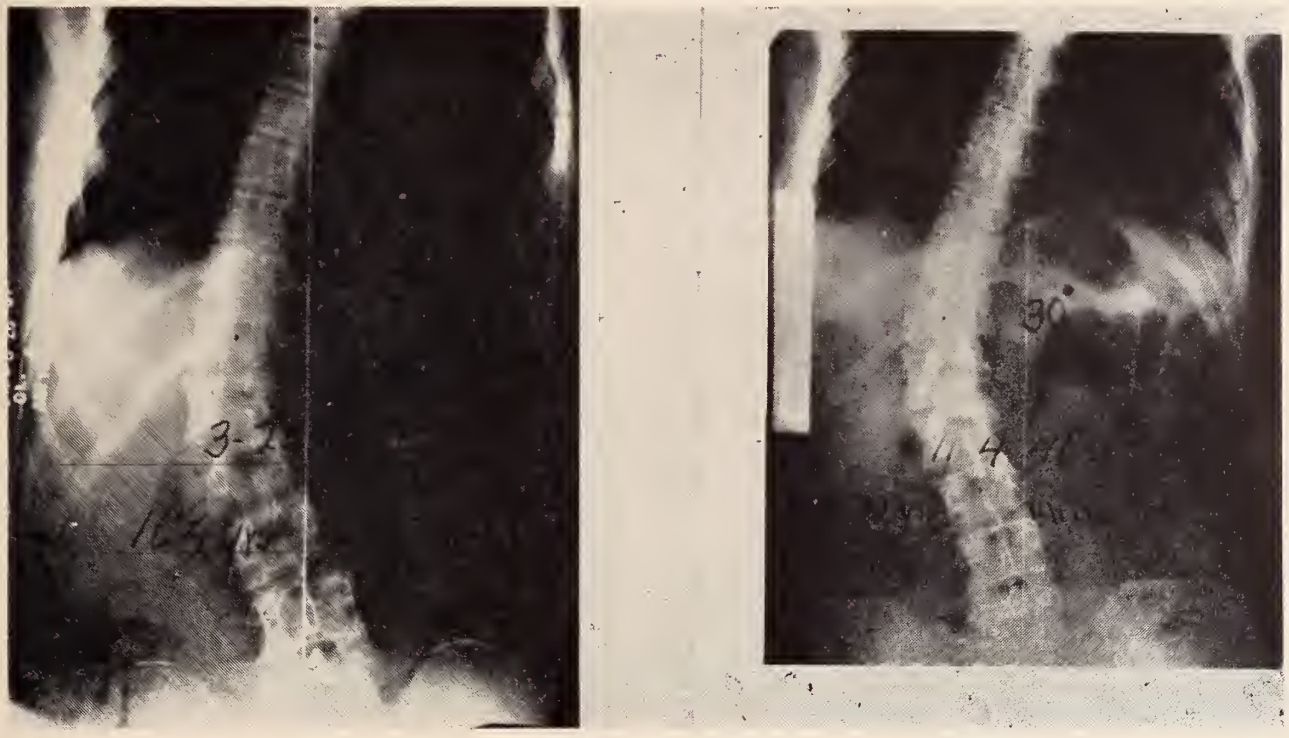
If your x-ray examination reveals a completed iliac apophysis, (not necessarily united to the ilium), the scoliotic deformity is static and will not increase unless from other superimposed causes as fracture and degenerative changes. If the patient is satisfied with the deformity, no treatment is indicated.

If the iliac apophysis has not appeared or it is not completed, then an increasing scoliotic de-

formity can be expected and treatment to prevent increasing deformity is imperative.

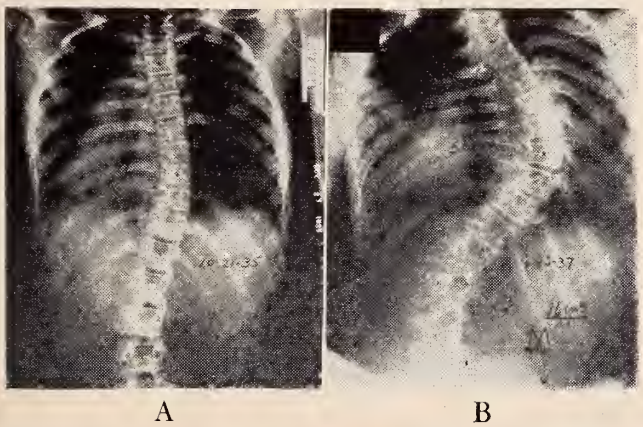
There are two characteristics of the scoliotic deformity, namely angulation between vertebrae which is caused by unequal muscle action, as seen in polio, or spastic conditions from trauma or otherwise. Vertebral angulation results in concave compression and convex separation. In the presence of vertebral growth concave compression would have a delaying action on the growing vertebra, whereas normal or accelerated growth, would be present on the separated convex side. This is known as Hueter[3]-Volkmann's[4] epiphyseal pressure rule. To prevent increasing scoliotic deformity angulation must be corrected, thereby relieving concave compression and allowing normal vertebral growth.

The second characteristic of the scoliotic deformity is apical vertebral rotation. Because of this transverse rotation of the apical vertebra, the ribs attached to these vertebrae are necessarily angulated posteriorly. This rib angulation is seen in a profile of the back as the patient bends forward for an examination of the spine.



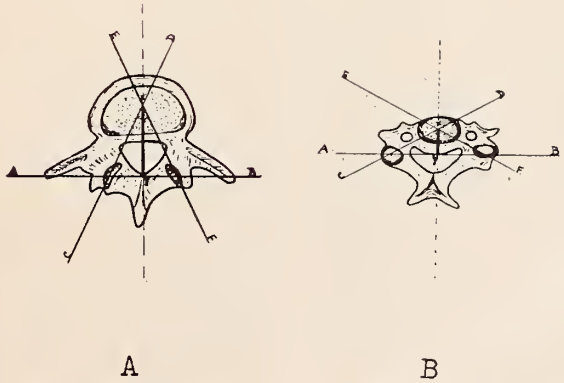
A B

(A). 16 year old girl. Iliac apophysis complete. Severe dorso-lumbar curve.
(B). 16 years later no increase in the deformity.



A B

(A). 14 year old girl with equal thoracic and lumbar curves. Vertebral angulation and beginning wedging noted in the thoracic area and very little rotation.
In lumbar curve angulation and much rotation present.
(B). Shows increase in deformity in 2 years time. Now at 16 years iliac apophysis is complete and curve is static.

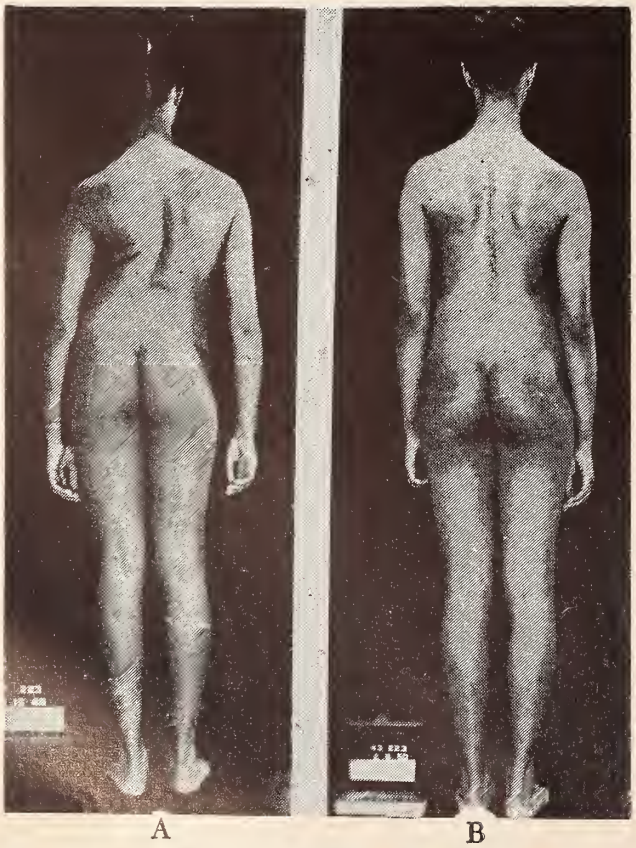


A B

(A). Cross section of lumbar vertebra, with the line X-Y much longer than the same X-Y line in the cervico-dorsal vertebra. The length of line X-Y indicates that eccentric segmentation or relationship is greater in the lumbar area: Therefore the greater and earlier rotation in the lumbar area.
(B). The shorter line X-Y seen in the upper thoracic vertebrae indicates less eccentric relation, therefore less and later rotation. If line X-Y had no length there would be no rotation of segments.

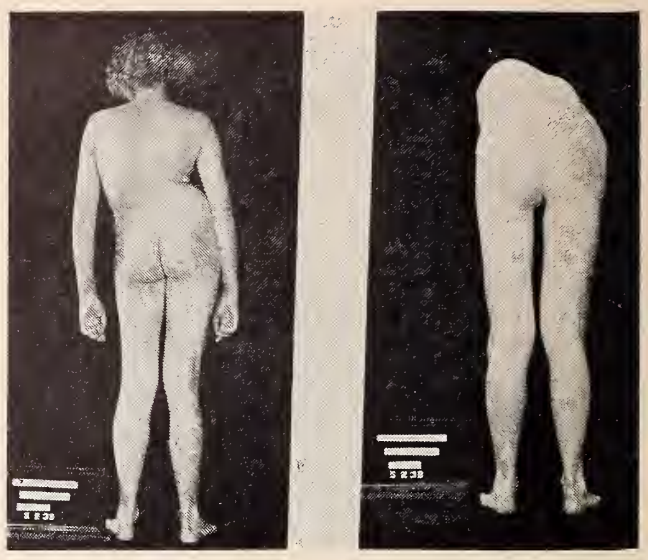
Apical vertebral rotation is a concomitant of lateral deviation of the spine. The direct points of contact between the vertebral bodies are the lateral facets. Apical vertebral rotation results when these lateral facets or articulations are more posteriorly placed. Because they are more posteriorly placed in the lumbar spine, apical vertebral rotation appears earlier in the scoliotic deformity than it does in the upper thoracic spine. Conversely lateral concave pressure is greater in the thoracic area and results in earlier and greater vertebral body wedging. Unfortunately this vertebral wedging is not correctible.

Treatment to prevent increasing deformity can only be had in the growing child and may be conservative or radical. The conservative treatment is based on the premise that external force as a corrective cast can correct vertebral angulation and with it the concomitant deformity of apical vertebral rotation. Correction of the angulation will relieve concave pressure on growing bone and prevent further vertebral wedging. If the correction is great enough it may not only relieve concave pressure but also reverse the pressure to the opposite side which was the convex side. This is only possible with actual apical over-correction of the curvature seen in early lumbar deformities. Maintenance of some cor-



A B

(A). V.M. – 14 year old girl before correction and fusion.
(B). V.M. – After turnbuckle correction and fusion.



A

(A). H.B. – Polio Case. 14 year old girl before turnbuckle correction and fusion.

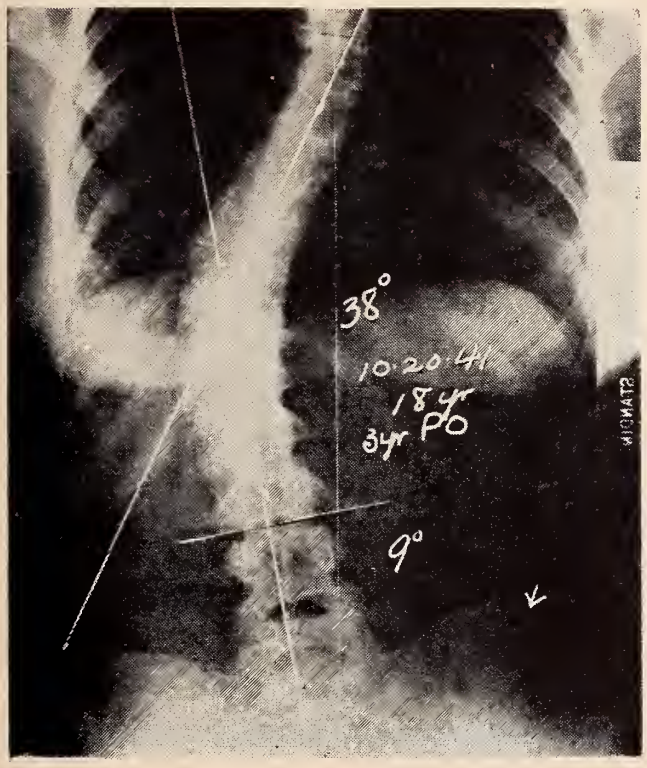


B

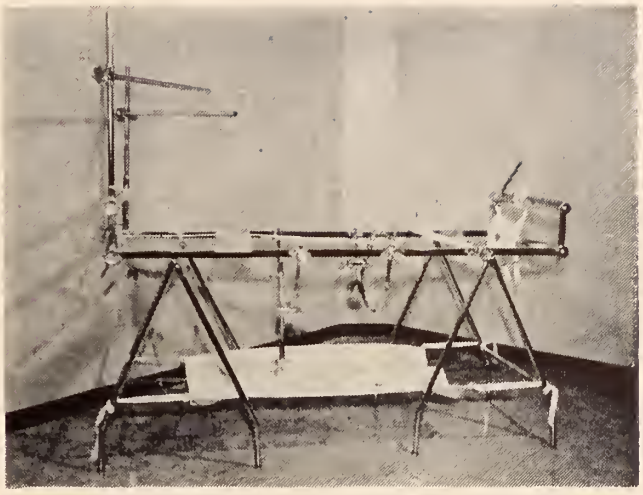
(B). H.B. – Same polio case after turnbuckle correction and fusion.



(A). 14 year old. Six years following polio. Note completion of ossification of iliac apophysis indicating a static curve. The severity of the deformity warrants correction and fusion.



(B). Same 14 year old after turnbuckle correction and fusion from D-6 to L-3. Note improvement in compensating lower lumbar curve from 45 degrees to 90 degrees. Note little if any rotation in low lumbar curve in precorrection view.



Scoliosis casting table for the application of turnbuckle or localizer correction casts.

rection is possible in over-correction if sufficient vertebral growth is present. To compete with growth, the deforming force, cast correction must be continued with interval casts — four to five months, on and off, as long as the deformity does not re-appear, until vertebral growth is completed as indicated by the development of the iliac apophysis.

When this treatment is started in young children, it may become radical treatment as to time if continued until completion of growth. The alternative treatment is surgical, that is, spine fusion which may be considered radical as to procedure. Spine fusion is the only method which will maintain correction of a spinal deformity or prevent increase of the scoliosis.

Correction of scoliosis is possible by the use of a body cast which uses traction (head and pelvic) for correction of angulation and lateral bend for correction of apical vertebral rotation. The turnbuckle cast, based on the principles advocated by Gurein[2] in 1842, of the combination of traction and lateral bend, termed by Guerin as oblique traction. Traction is possible with lateral bend if the bending hinge is placed eccentrically. This combination of forces is used in the antero-posterior hinge turnbuckle cast.

More recently a more convenient method using these forces of correction has been used. Because of the added corrective forces of localized pressure postero-laterally over the rib angulation, it is termed the localizer cast. This localizer cast allows the patient to be ambulatory and thus it is more physiological and also more economical, making it the treatment of choice.

To maintain the correction of the scoliosis

gained by the cast, surgical fusion of the area of curvature must be accomplished. By eliminating the spinal motion through which the deformity is corrected and would recur, the correction is maintained. A post-operative localizer cast is worn until the fusion is solid, total about eight to 10 months in the average case. The patient is ambulatory with the application of the post-operative cast seven to 10 days after surgery.

The fusion area must cover the full extent of the curve, as indicated by vertebral angulation and apical vertebral rotation. Recurrence of the deformity may occur if the fusion area is not long enough or is not strong enough.

Early correction and fusion gives the best results percentage wise. The amount of forcible correction is usually double the recumbent correction, which is shown by the difference between the deformity in the standing (weight bearing) view and that of the recumbent x-ray.

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VOL. 15 JULY, 1958 NO. 7

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The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notifed within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
8. Illustrations — Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.
9. Reprints — Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

PERSPECTIVES IN BIOLOGY AND MEDICINE

THE APPEARANCE of a new journal on the medical scene usually sends a little shudder of apprehension through one. The planting of a new sapling in a forest where only a few trees have achieved exceptional growth, implies hard work and careful cultivation. The new journal we are referring to is *Perspectives in Biology and Medicine*. It is to be published quarterly by the University of Chicago Press, and is sponsored by the Division of Biological Sciences of the University of Chicago.

With reference to the aims and aspirations of the journal, we believe it best to let the editors, Drs. D. J. Ingle and S. O. Waife, speak for themselves. We quote, with permission, their introductory editorial:

"The introduction of a new journal to scientists and physicians already surfeited by publications warrants some explanation. The "apologia pro vita sua" can be epitomized in Hughlings Jackson's statement: 'We have multitudes of facts, but we require, as they accumulate, organization of them into higher knowledge. We require generalizations and working hypotheses.'

"The recent important advances in biomedical research are largely based upon analyses of smaller and smaller systems. Splinter sciences have thus developed, whose organs of communication — professional journals — are, perforce, preoccupied with the publication of data to the exclusion of leisurely interpretation and speculation.

The Title

"This journal is designed to communicate heuristic ideas. We hope that the reader will carry these ideas to the laboratory and to the bedside. Since our objective is to publish papers that enlarge biological horizons and bring specific medical problems into perspective with investigative work on life-processes, our boards selected the title, *Perspectives in Biology and Medicine*. The orientation of *Perspectives* will be toward man and his illnesses, but with appreciation of the fact that the roots of medical theory reach into all fields of biology. If any discipline can offer new insight into the nature

of metabolism, heredity, reproduction, growth, adaptation, individuality, aging, etc., or into the processes of contraction, conduction, and secretion, these are the new horizons which will permit a multi-disciplined approach to the problems of biology and medicine.

Perspectives will publish original essays, editorials, letters to the editor, and book reviews. Original essays will include new hypotheses and concepts reprcsenting informed thinking and interpretive essays which take stock of the results and implications of recent and current research and indicate strategy for the future. Because perspectivc can also be sct by looking at the past, there will be an occasional historical essay. Now and then leaders in education and research will be invited to write about education in biology and medicine and about needs in research. It is intended that each issue will includc an autobiographical skctch of a person who has made important contributions to biology and medicine. The Letters to the Editor section will be a forum for brief presentation of ideas and for debate.

Contributions Invited

"Although, in the beginning, *Perspective* will consist of invited essays, readers who have new hypotheses and concepts are encouraged to submit them for editorial consideration. Hypotheses and debate should be expressed in good humor. It is the hope of the editors that in the future a number of meritorious contributions will be submitted voluntarily. The editors will continue to invite essays on subjects which they judge to need special attention.

"With this background, we offer this first issue for the reader's appraisal and constructive criticism. We hope to learn by experience and by advice from our readers, as well as from the distinguished members of our advisory and editorial boards, how to aid the communication of creative ideas in biology and medicine."

In an effort to whet the appetite of the potential reader, it may be of interest to give the table of contents of the first issue, which appeared in the autumn of 1957.

Herman M. Kalckar on "Some Considerations Regarding Biochemical Genetics in Man"; C. Judson Herrick on "Medical Teaching by a Non-Medical Specialist"; M. S. Goldstein and E. R. Ramey on "Non-Endocrine Aspects of Stress"; Russell Meyers on "A Critical Look at Medical Education in the United States with Comments on the Role of the 'Specialty Boards' "; M. E. Krahl on "Speculations on the Action of Insulin, with a Note on Other Hypoglycemic Agents"; Roger J. Williams on "Normal Young Men"; Lawrence S. Kubie on "Freud's Legacy to Human Freedom"; and George Day on "Ten Years of Creative Group Therapy."

A.B.

THE SUMMARY

"Does its color appear to you unwholesome?
. . . or its form obscene?" — Cyrano De Bergerac

PROBABLY none of us who conscientiously strive to praetice good medicine would dispute the benefit of the "medical audit" to the consumers of medical care. Most doctors were conducting their professional duties wcll within the framework of limitations set forth by the hospital joint accreditation board and to them the advent of tissue committees and records committees meant not the slightest dislocation of their usual practice. There were a few exploiters countrywide who got pulled up short and no one is grieving for them. The principle of review and audit by one's peers is old in our profession and the system devised and supervised by the accreditation board is in general a good one. Nevertheless, there might be some details of the system which could stand thoughtful reconsideration, (A *fiat,* Chicago, "ain't necessarily so.") and the commandment "Thou shalt make a summary" is, we contend, one of those. We are not referring here to what the record librarian calls the summary sheet which contains identification data, admitting and final diagnosis, condition on discharge, statement of surgical procedure and, of course, the attending physician's signature. We are referring to a recent edict wafted in from some high place smelling suspiciously of the shores of Lake Michigan: You there, doctor, you will write a summary at the conclusion of your patient's hospital record — or else!

Valuable Training

A summary of a patient's clinical course including diagnostic findings, theraputic procedures and the outcome thereof during residence in hospital is valuable training for house officers. The summarizer in a teaching hospital, usually an assistant resident, is required to review the history and physical examination recorded by the student clinical clerk and the interne, the ruminations of the senior resident, the opinions of the attending physicians and consultants from other services, the detailed reports from the several laboratories that may have been employed and last, his own opinions, diagnostic triumphs and mistakes. The summary is a salutary learning exercise for an assistant resident in a university teaching hospital. The same is probably true for house officers in veterans' administration hospitals; especially the big ones which, through close association with university medical schools, are in fact teaching hospitals. It may not be true for the many veterans' administration hospitals which have no direct affiliation with a university medical school, but in general, wherever there is a teaching program for house officers, the rule that a summary be written by the house officer directly responsible for the particular patient's care in the hospital is reasonable, proper and commendable.

How about all the other hospitals in these United States? Should a special teaching technique for house officers be required of the community hospital? Or, more precisely, should it be required of the physician who attends patients in the community hospital? In most instances the only recorded data in a private hospital are the attending physician's own written report of history, physical examination, admission, progress and discharge notes — plus, of course, the graphic record and written report of nurses' observations. In all cases there will be laboratory reports which may or may not be classified as "consultations" depending on the sense of humor of the pathologist and radiologist. In surgical cases there will be additional recorded data. In certain complicated cases the hospital record may contain several consultation reports, the ultimate one being sometimes the necropsy protocol.

What's The Point?

What is the point of a summary at the conclusion of this hospital record? If the progress notes are proper ones, the whole story of the clinical course has been unfolded play by play, the significant data has been culled from consultation reports and nurses' observations and there it is "on the record" for the looking. A summary can be only a repetition of what is already recorded and, as such, is a wasteful exercise in verbalism; in grade school it was called paraphrasing. The attending physician finds himself copying his own holograph — and for whom, please? For his own educational benefit? Note has been previously made of the value of a summary of a learning technique for the house officer. Note is right now duly made that word juggling is an extravagent waste of time for a seasoned clinician. His admission, progress and discharge notes, if they are worth the paper they are written on, are quite enough and no summarizing verbiage can make them any better.

Is the summary then for the benefit of some future investigator? Nonsense! Any investigator will scrutinize the whole record for the particular data he is seeking. He knows the summary for what it is — a trap. Possibly the summary is for the benefit of the records committee? If so, it is a costly way of passing the buck and, furthermore, it is still a trap. Finally, if the summary is for the benefit of the hospital inspector, the agent of the joint accreditation board who from time to time darts in to see whether we are keeping our noses clean, then indeed we should take stock of our mendicancy and join in revolt against all phony make up, especially that falsest of noses; the senseless, servile summary.

C.R.

"I, sir, if that nose were mine,
I'd have it amputated — on the spot." —
Cyrano de Bergerac

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SIMPLIFIED CLAIM FORMS

Where Are They?

THE HEALTH Insurance Institute announced the adoption of simplified health insurance claim forms. More than 200 insurance companies who together write over 80 per cent of the group accident and health insurance, and more than 50 per cent of the individual and family protection provided by the health insurance business are now using the two uniform hospital insurance claim forms developed by the Health Insurance Council. The board of trustees of the American Hospital Association has given its official blessing to these streamlined twins which were three years "a'bornin," but already are proving to be time, labor and money savers. The ultimate beneficiary is, of course, the hospitalized patient.

A physician looks longingly at the 15-page Health Insurance Council report — the cover of which designates it "A Report to Hospital Administrators." Maybe pretty soon he can read a comparable report addressed "To American Physicians." It doesn't have to be 15 pages long — just please give us that uniform simplified claim form, or two of them, if it's got to be that way. Apparently a survey for such uniform claim forms for physicians' reports is now in process and the Council on Medical Service of the American Medical Association has announced approval of the forms. Well — where are they? C.R.

THE WORLD MEDICAL ASSOCIATION

MEMBERSHIP in the United States Committee of the World Medical Association offers you the opportunity to play a direct role in the world-wide affairs of organized medicine.

In these times, when mutual understanding seems to be the only road to peace, the universal language of medicine can help mend the ills of the body politic, just as it is mending the ills of the individual.

The 5,000 leaders of American medicine who comprise the U. S. Committee of WMA recognize that it is just as important for them to support medicine's international society as it is to be members of their county, state and national medical organizations.

WMA has formulated an international code of medical ethics and a modified Hippocratic oath defining the ideals and obligations of physicians. WMA has also set forth the basic principles that should protect the rights and status of doctors in all governmental social security schemes. And WMA has done more than give lip service to these codes and principles. It is working day and night around the world to protect the profession wherever it is threatened by political interference that would prevent the doctor from serving his patients according to his scientific knowledge and his conscience. Recently, WMA has defended the rights of the medical profession against attempts by various non-medical organizations to draft a code of international medical law.

American physicians are singularly fortunate in having met their social and economic problems by voluntary action, turning back the threat of political domination. Our favored position only emphasizes our responsibility to lead the fight to preserve the principles of good medical practice for our colleagues abroad, and to help them restore these principles wherever they have been compromised.

Advantages

Doctors the world over hold the same basic ideals and cherish the same hopes for medicine. WMA has provided solidarity and strength by bringing physicians together for the solution of their common problems.

A tangible benefit of membership in the U. S. Committee is the privilege of attending the annual assemblies of the World Medical Association as an official observer. The 12th general assembly will be held in Copenhagen, Denmark, from Aug. 15 to Aug. 20, 1958. A large number of U. S. Committee members are expected to be present, many of them combining attendance at the assembly with a tour of European centers of medical interests.

The WMA secretariat assists members of the U. S. Committee in making arrangements for foreign travel, providing information on foreign medical meetings, and introductions to medical leaders and teachers abroad, and promoting to the utmost the international friendships and contacts of physicians.

Membership in the U. S. Committee also brings you the World Medical Journal, published every other month by WMA. This magazine,

edited by Dr. Austin Smith, (editor of JAMA) brings you world-wide information on medical progress and problems in the 53 countries whose national medical associations comprise the membership of WMA.

WMA is speaking for you and working for your interests in its contacts with other world organizations concerned with health or medical care, such as the World Health Organization (WHO) of the United Nations, the International Labor Organization (ILO), the International Social Security Association (ISSA) and the international committee of the Red Cross.

Some other activities and accomplishments of WMA of interest to every American physician are:

Sponsorship of the first world conference on medical education in London in 1953, and the second such conference, to be held in Chicago in 1959.

Promotion of international exchanges of medical students and teachers, lecturers and clinical teaching by traveling teams of physicians.

Development of an international program to improve occupational health services.

Promotion of a freer flow of proved therapeutic agents throughout the world by urging removal of unwarranted trade restrictions and arbitrary licensing requirements in certain countries.

Promotion of medical research, by promoting national pharmacopoeias and defending the rights of individuals discovering new drugs and agents to name them.

Development of an international emblem (in conference with the international committee of the Red Cross and the international committee on military medicine and pharmacy) for identification and protection of medical units and civilian physicians engaged in civil defense in war time; and promulgation of regulations stating the rights and duties of such physicians.

Formulation of plans for a central repository of medical credentials, to enable qualified physicians of every country to file proof of their identity and qualifications with a safe and authoritative international source.

Conducting useful studies of many subjects of world-wide interest to physicians, such as post-graduate medical education, hospital facilities, cult practices, medical advertising, and effects of social security legislation on medical practice.

The World Medical Association brings you solid benefits as well as the satisfaction of taking part in the international affairs of our profession. You can help make its work more effective by joining the U. S. Committee. The nominal dues of active membership in the U. S. Committee are only $10 each year. The Committee is seeking to double its present membership of 5,000 American physicians this year. The objectives of WMA are your objectives. It is your voice in world medical affairs. We invite you to add your name and your voice in guiding and strengthening this great organization.

LETTER TO THE EDITOR

TO:

The Yavapai Yanques

FROM:

The Needle

SUBJECT:

That long delayed dissertation on Arizona medical history which you — your colleagues — and in not a few instances, your fathers have lived, is now long past due.

QUESTION:

When do you propose to hoist the gluteal folds and titilate the cerebral cortex and make with this data?

ANSWER:

Yes, or yes.

PUBLICATION:

Perhaps Dr. Howell Randolph who now chairs the committee on the history of the state society, would assist you in placing this material in *Arizona Medicine*. Perhaps this fabulous flimflam fournal would acquiesce in this enterprise.

Topics of Current Medical Interest

CHEMOTHERAPY OF SPECIFIC INFECTIOUS DISEASES OF THE LOWER RESPIRATORY TRACT

Report of Committee on Chemotherapy and Antibiotics, American College of Chest Physicians

THE MAJORITY of pulmonary infections can be successfully treated by the judicious use of antibiotics and other chemotherapeutic agents. It is important to establish a diagnosis of the type of infection in all infectious diseases of the respiratory tract. Cultures should be made prior to therapy whenever feasible. Sensitivity tests of the organisms found in all prolonged infections are essential guides in the care of the patient. It is sometimes difficult to make an exact bacteriological diagnosis at the onset of a pulmonary infection, and treatment may have to be started at once. A simple Gram's stain of a fresh sputum specimen is important in determining the type of therapy while awaiting the cultures. If the diagnosis is still obscure and the patient has a severe infection, therapy designed against both gram-positive and gram-negative organisms should be instituted. Obviously all other clinical guides will be useful, such as the manner of onset of the disease, the characteristics of the sputum, the white count, the cold agglutinins, etc. Treatment should be vigorous and should be continued until all signs of infection have cleared. This is important to prevent development of chronic disease of the lungs and bronchi.

Classification of Pneumonias

I. BACTERIAL:

a. Pneumococci
b. Streptococci
c. Staphylococci
d. Klebsiella pneumoniae
e. Hemophilus infections
   1. Pertussis
   2. H. influenzae
f. Pasteurella infections
   1. Pasteurella pestis
   2. Pasteurella tularensis
g. Coliform, proteus and pseudomonas (gram-negative bacilli present in the intestinal tract)
h. Salmonella group
   1. Typhoid
   2. Paratyphoid ABC
i. Brucella
j. Anthrax
k. Glanders

II. VIRAL (KNOWN AND PROBABLE):

a. Psittacosis
b. Influenza A & B
c. Variola
d. Varicella
e. Rubella
f. Lymphocytic choriomeningitis
g. Primary pneumonitis of infants
h. Infectious mononucleosis
i. Erythema exudativum multiforme
j. Primary atypical pneumonia

III. RISKETTSIAL:

a. Typhus
b. Rocky mountain spotted fever
c. Q fever

IV. MYCOSES (PRODUCING A PNEUMONIA-LIKE PICTURE):

a. Actinomycosis
b. Nocardiosis
c. Blastomycosis
d. Coccidiodomycosis
e. Histoplasmosis
f. Moniliasis
g. Cryptococcosis
h. Aspergillosis
i. Geotrichosis
j. Penicilliosis
k. Sporotrichosis

Treatment of Pneumonias

I. BACTERIAL PNEUMONIAS:

Pneumococcal pneumonia. Penicillin is the drug of choice in the treatment of pneumococcal pneumonia. It is best given by the intramuscular route, using 300,000 units of aqueous penicillin every three to four hours, or 600,000 units of procaine twice daily. Oral penicillin is not advised except in mild cases. Therapy is continued until the temperature has been normal for three days. Larger or smaller doses may be used depending on the severity of the disease. The sulfonamides are highly effective in the treatment of pneumococcal pneumonia. The dosage is 6 to 8 gms. daily. The broad-spectrum antibiotics, including tetracycline, chloram-

Reprinted from Diseases of the Chest, Official Journal of the American College of Chest Physicians, Volume XXXIII, No. 4 (page 435), April 1958.

phenicol and erythromycin are all effective, but should still be considered second to penicillin.

Streptococcal pneumonia. Treatment of streptococcal pneumonia is the same as that of pneumococcal pneumonia.

Staphylococcal pneumonia. Treatment of staphylococcal pneumonia requires considerable care in view of increasing development of staphylococcal resistance to most antibiotics. Sensitivity tests should be made early. If the organism is penicillin sensitive, large doses of penicillin, two to four million units daily should be given and no other antibiotic need be given with it except perhaps streptomycin. If the organism is penicillin resistant and susceptible to erythromycin or novobiocin, then one or the other of these drugs should be used. Vancomycin, which is not yet on the market, is an excellent bactericidal agent for staphylococci and should be used if the organism is resistant to other more readily available drugs. In the seriously ill patient who is not responding to the prescribed therapy, bacitracin in doses of 25,000 units every six hours should be added. The nephrotoxic potentialities of bacitracin must be watched. Treatment of staphylococcal infections should be prolonged for three or four weeks.

Klebsiella pneumonia. Test of susceptibility should be performed, but usually this type of pneumonia is best treated by streptomycin 2 to 4 gms. daily plus one of the tetracyclines in 4 gm. dosage initially. After response to therapy, the dosage may be lowered. Sulfadiazine has also been quite effective in conjunction with streptomycin. Treatment must be continued for several weeks because of the severity and chronicity of the disease. The potential toxicity of streptomycin when used too long must be kept in mind.

Hemophilus infections. Chloramphenicol or tetracycline in doses of 2 to 4 gms. daily are effective in both pertussis and H. influenzae infections. Sulfadiazine or streptomycin should be used in combination in the serious case.

Pasteurella infections. Sulfadiazine, streptomycin, chloramphenicol and tetracycline have all proved effective in the treatment of plague pneumonia. Streptomycin is the drug of choice. Streptomycin is the ideal agent in the treatment of tularemic pneumonia in dosage of 2 to 4 gms. daily. The broad-spectrum antibiotics are also effective.

Coliform, proteus and pseudomonas group. This group is becoming increasingly important as a result of antibiotic therapy. Sensitivity tests must be done to find the most effective drugs. The organisms may be sensitive to the broad-spectrum antibiotics, sulfadiazine and streptomycin. A tetracycline may be sufficient for the coliform and proteus types of pneumonia if the organism shows susceptibility to these agents, but combinations of antibiotics are usually necessary. If these organisms are resistant, combination of tetracycline and streptomycin in full dosage should be tried. If response does not occur, penicillin, in larger doses, in combination with chloramphenicol should be tried. In resistant infections, polymyxin may be used with a tetracycline. Polymyxin is the drug of choice for pseudomonas pneumonia. The drug is both nephrotoxic and neurotoxic. It should be used with caution. In general, infections by this group respond poorly to all antibiotics.

Salmonella group. The typhoid bacillus is a rare cause of pneumonia. Chloramphenicol 2 to 4 gms. daily followed in a few days by 1 gm. dose is specific. In the other Salmonella infections, chloramphenicol or one of the tetracyclines may be used.

Brucella infections. Brucella infections are best treated by a combination of tetracycline, ¾ gm. every six hours in combination with streptomycin 1 gm. daily for a month.

Anthrax. Pulmonary anthrax is a rare complication of anthrax but when present is a very serious and fulminating disease. The tetracyclines are the drugs of choice, though penicillin and the sulfadiazines have also been used successfully.

Glanders. Lung lesions occur in about one-quarter of the glanders cases. Sulfadiazine and streptomycin are effective in the treatment of glanders. The broad-spectrum antibiotics have also been used successfully.

II. VIRAL PNEUMONIAS

Psittacosis. The tetracyclines are the drugs of choice, using 4 gms. daily for the first two days, followed by a 2 gm. daily dosage. Penicillin has been used successfully.

Virus influenzal pneumonia. There is no known specific for influenzal pneumonia.

Variola. Pulmonary lesions often occur in smallpox. There is no specific for the primary disease, but because of secondary infections by

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...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

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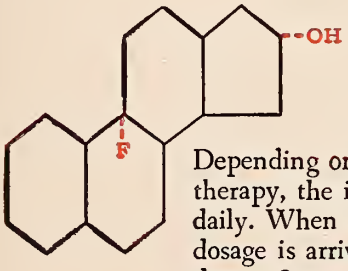
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Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

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bacteria, appropriate chemotherapy for these infections should be used.

Varicella. Pneumonia occurs rarely. Treatment should be directed to secondary bacterial infections.

Rubella. Bronchopneumonia is a common complication of measles. While there is no specific for the measles virus, superimposed bacterial infections are frequent and can be successfully treated by penicillin or the tetracyclines.

Lymphocytic choriomeningitis. Pneumonia occurs in lymphocytic choriomeningitis. Treatment is symptomatic.

Primary pneumonitis of infants. There is a serious disease in the newborn and premature infants, probably due to a virus. There is no known specific therapy.

Infectious mononucleosis. Bronchopneumonia is a rare complication of infectious mononucleosis. There is no known specific for this disease.

Erythema exudativum multiforme (Stevens-Johnson syndrome). Pneumonia is a common accompaniment of this disease. It appears to be due to a virus which is not affected by any known antibiotic. Steriod therapy has often proved to be helpful.

Primary atypical pneumonia. The status of drug therapy of primary atypical pneumonia is still under question. Some observers feel that a tetracycline 0.5 gm. every six hours should be given until temperature has been normal for at least three days, principally to guard against secondary bacterial invaders. Some observers prefer to use no antibiotic therapy in the average case unless there is indication of a secondary infection.

III. RICKETTSIAL PENUMONIAS:

Treatment of all of the rickettsial pneumonias may be combined together. Chloramphenicol or a tetracycline appears to be equally effective. The dosage in severe cases is 1 gm. every six hours for three doses, then 0.5 gm. every six hours until the temperature is normal.

IV. MYCOTIC INFECTIONS

Actinomycosis. Penicillin is the drug of choice, one or two or more million units a day usually along with surgical drainage if necessary. One of the tetracyclines may be just as effective. Treatment is continued for at least six weeks and should be kept up long after the lesions have disappeared, to prevent a recurrence.

Nocardiasis. Sulfadiazine is the drug of choice for nocardia infections. The broad-spectrum antibiotics may be helpful. The treatment must be prolonged.

Histoplasmosis. At present there is no proved therapeutic agent for this disease, but very suggestive results are being obtained with a new antibiotic, amphotericin B. The drug has been employed in a number of cases and the incidence of serious toxic manifestations has been relatively low. It has also demonstrated definite therapeutic effect. The drug is very difficult to administer and must be given intravenously in a slow drip over a period of six hours. Approximately 1 mgm. per kilo per day is the usual daily dose and treatment is continued from 30 to 60 days. Under special circumstances the daily dose may be increased to as much as 100 mgm. per day. An oral form of the drug is available, but has not proved to be effective. Immediate febrile complications during therapy are not unusual especially if the drug is given too fast. These effects may be ameliorated by aspirin. These reactions have not interfered with the continued use of the drug.

Blastomycosis. 2-hydroxystilbamidine is the most effective agent in the treatment of blastomycosis. Standard daily dose is approximately 250 mgm. dissolved in 250 to 500 cc. of 5 per cent dextrose, and given intravenously. This is given rather slowly over a period of several hours at least. The drug should be used immediately after preparation and the solution should be protected from sunlight. Thirty to 60 days of daily dosage of 250 mgs. is recommended. The drug may be repeated in case of relapse. Facial neuropathy may occur, but is much less frequent than with stilbamidine. Recently amphotericin B has appeared quite effective in treatment of blastomycosis.

Coccidioidomycosis. Amphotericin B may be used for treatment of coccidioidal disease.

Moniliasis. Mycostatin is an effective antifungal drug for intestinal monilasis, or it can be used locally. It has no effect on the systemic disease as it is not absorbed from the intestinal tract. In systemic moniliasis, it is suggested that one of the newer antibiotics be employed, such as amphotericin B.

Cryptococcosis. Amphotericin B may be used. Its effectiveness is still under investigation.

Aspergillosis, geotrichosis and penicilliosis.

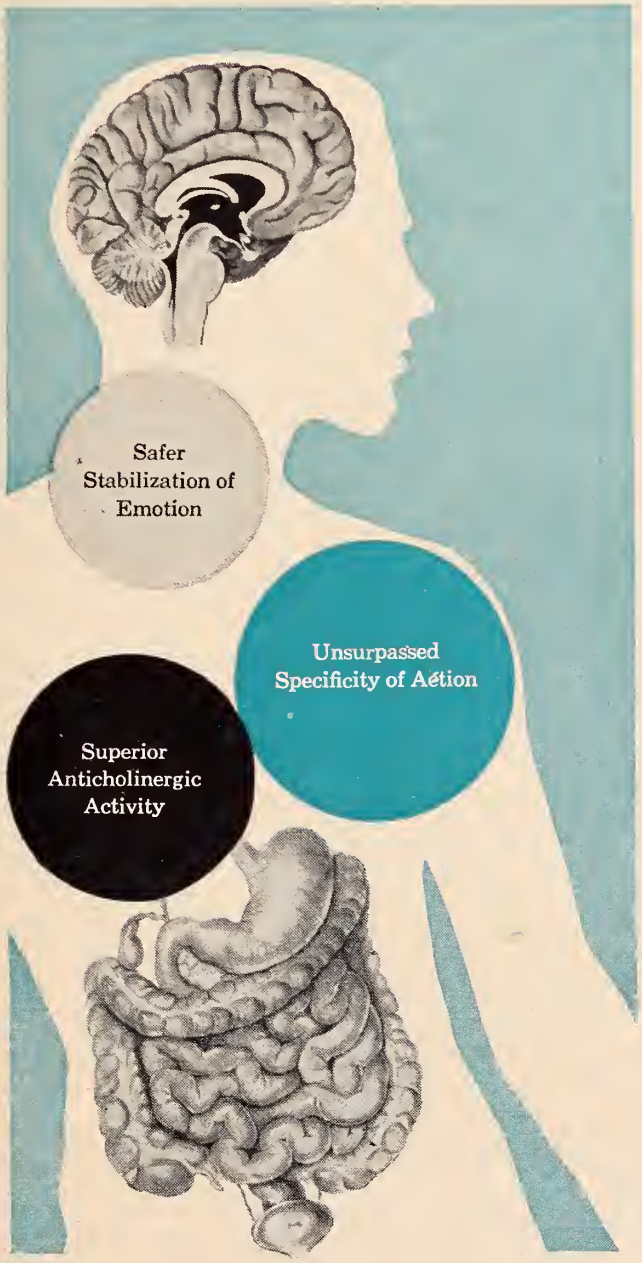
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These diseases are refractory to all known antibiotics. Amphotericin B should be tried.

Sporotrichosis. This usually responds satisfactorily to potassium iodide. 2-hydroxystilbamidine should be tried in the refractory case.

Steroid Therapy

The role of steroids in the therapy of infectious disease is a subject of tremendous controversy. When overwhelming infections cause adrenal insufficiency, steriod therapy is indicated. The beneficial anti-inflammatory and "antitoxic" effect of the steroids is opposed by the adverse influence of the steroids on tissue localization of infection. However it is likely that one may accomplish the desirable and prevent the potential harmful effects of steroids by the simultaneous use of anti-microbial agents to which the infective agent is susceptible. On theoretical grounds at least, it would be undesirable to use steriod therapy in infections caused by organisms resistant to anti-microbial agents. There appears to be a place for the use of steroids in overwhelming infections not responding to conventional therapy.

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Private nonprofit hospitals in this country have an average of more than $14,000 in assets per bed. Comparable figures are $10,000 for federal hospitals, $5,000 for nonfederal government hospitals, and $4,300 for proprietary hospitals.

JUNE 1, 1958, PROGRESS REPORT FROM THE ARIZONA POISONING CONTROL INFORMATION CENTER AT THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY

Toxicity Studies of Arizona Ornamental Plants

THE PHARMACOLOGY division of the University of Arizona College of Pharmacy, in cooperation with the Arizona Poisoning Control Information Center, has been carrying out toxicological studies with two ornamental plants growing around homes in Arizona — namely, the Bird of Paradise, and Pyracantha shrubs. This report will consider the Bird of Paradise.

BIRD OF PARADISE

Caesalpinia gilliesie (Hook), Fam. Leguminosae:

Two accidental poisoning cases reported to the Arizona Poisoning Control Information Center in September 1957, prompted experimental studies toward determining the toxicity of this plant. The two cases involved Tucson boys, each of whom ingested approximately five Bird of Paradise green seed pods, which bear a close resemblance to the green pea pod. Within 30 minutes following ingestion, both of the boys displayed severe gastrointestinal symptoms characterized by nausea, vomiting and profuse diarrhea. These effects persisted intermittently for approximately 24 hours after which time the symptoms abated.

Experimental animal studies recently conducted reveal that the severe gastrointestinal manifestations probably resulted from irritant principles present in the seed pods. An example of one series of tests which led to this assumption is the Hoppe trypan blue skin test for irritation. Intradermal injections of a 2 per cent aqueous extract of the green seed pods in six rabbits produced a high degree of irritation characterized by inflammation with extensive edema formation and ulceration followed by cicatrization. The inflammatory reaction in these animals persisted for approximately three weeks.

The month of June marks the reappearance of the seed pods on the Bird of Paradise. Home gardeners should be encouraged to remove and destroy the green pods on their shrubs. Should accidental ingestion of these pods occur, the following treatment is recommended: Prevent or reduce gastrointestinal irritation by administer-

ing the whites of eggs beaten with water — or flour mixed with water and then remove by gastric lavage or emesis, if vomiting has not begun. Demulcents such as milk, liquid petrolatum or more egg white should be administered. If extended vomiting and diarrhea occur, the physician may maintain hydration by giving fluids orally or by IV injections.

Precautionary Labeling of Hazardous Chemicals

A very informative article which should be read by everyone concerned with the perennial public health problem of accidental poisoning is entitled Principles for Precautionary Labeling of Hazardous Chemicals, by Bernard E. Conley and appears in the Journal of the American Medical Association, Vol. 166, pp. 2154-2157, April 26, 1958. In this article, Dr. Conley, secretary of the American Medical Association's committee on toxicology, points out that a substantial number of packaged chemicals are not now required by law to identify hazardous ingredients on their labels or to warn users of the dangers of overuse or misuse.

Inadequate labeling of potentially harmful chemicals has been a major handicap to a successful attack on the problem of accidental poisoning. A bill intended as a model for uniform laws, requiring the declaration of hazardous ingredients and warning statements on the label and in the accompanying literature of chemical products has been drafted by the Committee on Toxicology of the American Medical Association and is presently being distributed.

An important consideration in the above-named article concerns the lack of a standard definition of a poison. Existing statutes either specify values varying from 5 grains (0.3 Gm.) to 5 Gm. as the lethal quantity for (adult) human life, or they resort to indefinite terms such as "noxious," or "virulent poison." It appears that we could well agree with Dr. Conley's statement that "in lieu of a generally accepted definition of poison, substances capable of causing death to any group are 'dangerous chemicals' and should be so designated on the label." For the purpose of legislation, the proposed standards of the committee on toxicology suggest that the toxic hazard of a substance or mixture of substances be based on animal tests, since they provide a consistent and usually reliable index of the poisonous properties of a chemical. A toxic (poisonous) substance is tentatively defined as any material which kills half or more of a group of laboratory animals (rats):

(1) Within two weeks in a single oral dose of 5 Gm. per kg. of body weight or less.
(2) On skin contact for a period of 24 hours in a concentration of 1 Gm. per kg. or less.
(3) On inhalation for one hour or less in a concentration up to 200 mcg. per liter of gas, vapor, mist, or dust.

Also significant is the recommendation that strongly sensitizing chemicals be required to be identified and carry warning statements on their labels. The frequency and severity of the sensitization reaction would determine whether a sensitizing material is potentially harmful. A chemical capable of producing an extensive dermatitis or other type of moderately severe disability occurring at a frequency of 1:10,000 would fall within the meaning of this definition.

STATISTICS OF 49 POISONING CASES IN ARIZONA REPORTED SINCE THE MAY 1, 1958, PROGRESS REPORT

	Per Cent		
Age:	65.3	involved under 5 year age group	(32)
	8.2	involved 6 to 15 year age group	(4)
	12.2	involved 16 to 30 year age group	(6)
	4.1	involved 31 to 45 year age group	(2)
	4.1	involved over 45 year age group	(2)
	6.1	not reported	(3)
Nature of incident:	89.8	accidental	(44)
	10.2	intentional	(5)
Outcome:	100	recovery	(49)
	0	fatal	(0)
Time of day:	16.4	occurred between 6 a.m. and noon	(8)
	49.0	occurred between noon and 6 p.m.	(24)
	20.4	occurred between 6 p.m. and midnight	(10)
	2.0	occurred between midnight and 6 a.m.	(1)
	12.2	not reported	(6)
Causative agents:	34.8	aspirin preparations	(19)

8.2	solvents (paint thinner, lighter fluid, turpentine)	(4)	
8.2	household bleaches	(4)	
6.1	sedatives (barbiturates and tranquilizers	(3)	
6.1	ornamental plants (oleander)	(3)	
4.1	lye	(2)	
8.2	insecticides	(2)	
4.1	food poisoning	(2)	
2.0	mothballs	(1)	
2.0	disinfectants	(1)	
2.0	laxatives	(1)	
14.2	miscellaneous (camphorated oil, analgesic, ergotrate tablets, sodium anytal capsules, furniture polish, tobacco)		

THE ARIZONA MEDICAL ASSOCIATION, INC.

COUNCIL MEETING

The Arizona Medical Association, Inc., Wednesday, April 30, 1958.

DISTRIBUTION OF MINUTES COMPONENT COUNTY MEDICAL SOCIETIES

THE distribution of minutes and/or reports from boards and committees to component county medical societies without first having the approval of the committee chairman or the committee as a whole, has resulted occasionally in the past in misinterpretation of such reports.

It was moved and seconded and unanimously carried that committee reports be held in the central office until release by either the chairman or by vote of the committee as a whole.

It was moved and seconded and unanimously carried that reporting of all matters, irrespective of their source, that involve policy, have the approval of council before being disseminated.

ARIZONA BLUE SHIELD MEDICAL SERVICE

Plan and Form Objections

By letters dated Feb. 10, 1958, and Feb. 11, 1958, Doctor Norman A. Ross, expressed concern in that Blue Shield is no longer addressing itself principally to the marginal income groups (the basic contract) there is a preferred contract, and more recently the 60-80 series contracts, the form and substance of the physician, and physician-supervised report, objecting to certain portions of form C-7 used by the Arizona Blue Shield Medical Service.

It was moved, seconded and unanimously carried that this matter be tabled, since it has already resolved itself (in the promulgation of the new form).

Transfer all Prepaid Medical Services to Blue Shield — Arizona Society of Pathologists

A letter dated March 6, 1958, over the signature of James D. Barger, M.D., president, and Lorel A. Stapley, M.D., secretary of the Arizona Society of Pathologists, was presented and read as follows:

"At a recent meeting of the Arizona Society of Pathologists held in Tucson, Arizona, on Jan. 26, 1958, it was voted by the society to petition the council of the Arizona Medical Association to consider the transfer of all prepaid medical services to Blue Shield. This would necessitate the definition of pathology, radiology, anesthesiology and physiatry as the practice of medicine and would remove payment of these services when rendered by a physician from Blue Cross coverage and substitute Blue Shield coverage in these instances."

It was moved and seconded and unanimously carried that this be referred to the Blue Cross-Blue Shield organizations for their study and opinion.

Pathological Consultation to Arizona State Department of Public Health — Arizona Society of Pathologists

A letter dated March 18, 1958, over the signature of Lorel A. Stapley, M.D., secretary, Arizona Society of Pathologists, was presented and read as follows:

"It has been suggested recently that the Arizona Society of Pathologists provide consultation to the Arizona State Department of Health in certain public health matters. The Arizona Society of Pathologists would like to go on record as volunteering their services for such con-

sultation at any time at no cost to the community. However, it is felt that such a recommendation should come from the level of the state medical association if it is their feeling that such a recommendation is in order."

It was moved and seconded and carried, that council endorse the (volunteer) services of the pathologist members of the Arizona Society of Pathologists (to be extended to the Arizona State Department of Health) on a consultation basis, at any time, without charge, should they be asked therefor.

EXFOLIATIVE CYTOLOGY

Program Reports — Cytology Co-ordinating Committee, Arizona Division — American Cancer Society

By letter dated Feb. 3, 1958, over the signature of James D. Barger, M.D., chairman, Cytology Co-ordinating Committee, Arizona Division, American Cancer Society, this association's approval of its program, as outlined below, is sought:

1. The Arizona division organized a cytology co-ordinating committee.
2. Mobilize support and interest of responsible pathologists.
3. Secure the support of the responsible component medical societies.
4. Recruitment and training of cyto-screeners.
5. Inform all responsible physicians in the area about the program.
6. The public education program started at the proper time.
7. Provide continuity of examination.
8. Preserve the doctor-patient relationship.
9. Make the program self-supporting.

Program Support — Arizona Society of Pathologists

A letter dated March 18, 1958, over the signature of Lorel A. Stapley, M.D., secretary, Arizona Society of Pathologists, was presented and read:

The Arizona Society of Pathologists has reviewed the proposed cytology program of the American Cancer Society as reported from the recent meeting by Doctor Barber. The program as stated indicates that there will be emphasis on the education of the public as to the use of cytology in the detection of cancer and in the recruitment of cytology screeners. It is our understanding that no state health department funds are to be used and that the doctor-patient relationship to be maintained at all times. This is not intended to be a 'crash' program, and is to be entirely self-supporting.

"The Arizona Society of Pathologists wishes to go on record as supporting the cytology program of the American Cancer Society as outlined."

Program Support — Recommendation — Professional Board — The Arizona Medical Association, Inc.

The professional board of The Arizona Medical Association, Inc., receiving a similar communication from the cytology co-ordinating committee of the Arizona division, American Cancer Society, dated Feb. 3, 1958, reported that following due deliberation, it had endorsed the proposed program pointing out that such action is not presented as a result of direction from its subcommittee on cancer, but that the report represents the personnel of that subcommittee.

It was moved and seconded and unanimously carried that we give them our endorsement.

CENTRAL CANCER REGISTRY

Report (subcommittee on cancer) Professional Board

Edward H. Bregman, M.D., chairman, subcommittee on cancer, professional board, by letter dated March 24, 1958, recommends as follows:

"That the Arizona State Department of Health create a Division of Cancer Control, the immediate purpose of which would be the establishment of a central cancer registry within the health department. We understand that the health department stands ready to assist the cancer control program in Arizona in this way, if such help is requested. It should be noted that transmittal of records of cancer cases to a central registry for statistical purposes can be done in such a way as not to violate the confidentiality of these records. It is anticipated that the state attorney general will support this opinion. The reporting of cancer cases to a central source is no more in danger of 'leakage' to unauthorized persons than the reporting of TB or VD records — The central registry would make statistical evaluations of the *combined* experience in the individual hospitals and observe and compare the *collective* quality of medical care to cancer patients . . . it is evident that a study of cancer patients in an individual hospital permits essentially only a vertical appraisal of its activities, i.e., a comparison with itself over a period of

years. On the other hand, the pooling of cancer records from a group of hospitals permits not only intra-mural but inter-mural evaluations; and it is apparent from the experiences of several central registries now in operation that the latter horizontal type of evaluation is an important stimulus to the improvement of medical care for cancer patients. The central registry, without any inference of censure or undue commendation, simply compiles the facts as they prevail, hospital by hospital, and the mere distribution of those facts to the hospitals provides stimulus for advancement in cancer control activities."

Action of Professional Board

The professional board of this association in regular meeting held Sunday, April 13, 1958, gave due consideration to the proposed development of a central cancer registry in Arizona within the Arizona State Department of Health and recommended to council that the endorsement of medicine be given this particular phase (creation of a cancer registry) and that council's final action be communicated direct to the Arizona State Board of Health.

It was moved and seconded and unanimously carried that we approve the recommendations of the professional board.

Resolution — Arizona Central Cancer Registry — by Jesse D. Hamer, M.D. — Delegate to AMA.

Doctor Hamer reported to council that he would present a resolution entitled "Arizona Central Cancer Registry" to the house of delegates of this association during its session on May 1, 1958, believing that a decision in so important a matter should be that of the house.

AMERICAN DIABETES ASSOCIATION — APPOINTMENT

John A. Reed, M.D., president, American Diabetes Association, by letter dated March 24, 1958, reported that Doctor Eleanor Waskow of Phoenix had been re-appointed for the State of Arizona to that body's board of state governors for a term of three years (1957-60) to expire in June 1960.

ARIZONA MEDICINE JOURNAL — EDITORIAL BOARD APPOINTEES

James D. Barger, M.D., by letter dated March 6, 1958, proposed to the association, as president of the Arizona Society of Pathologists, that a policy be adopted for the Journal of Arizona Medicine requiring that associate editors of the Journal in specialized fields of medicine be required to not only be members of The Arizona Medical Association, Inc., but also members of their respective specialty societies in the state, if any such exist.

It was moved and seconded and unanimously carried that a letter be written in answer to this that the only requirement for appointments within the gift of the association to any group is membership in the state medical association.

Tape Recordings of Medical Meetings for Publication in Arizona Medicine

Communication from the editor-in-chief of Arizona Medicine requesting authority from council to have tape recordings made of selected scientific sections of out-of-state medical meetings, particularly the Ogden Surgical Society, for publication in Arizona Medicine Journal. Discussion ensued.

It was moved and seconded and unanimously carried that there be established a budgetary allotment for the publishing committee.

Texas Medical Association — Medicare Contract Not Renewed

William L. Baughn, M.D., secretary, Association of American Physicians and Surgeons, Inc., by letter dated April 25, 1958, reported action of the Texas Medical Association by an overwhelming majority vote, instructing its officers to not enter into any contract with a governmental agency, which will result in no Medicare contract as of May 1, 1958; and further directed its AMA delegates to initiate steps designed to bring about repeal of PL 569 (Medicare) or its modification to provide medical care for the dependents of military personnel through indemnity programs underwritten by voluntary prepayment plans, or a pay increase adequate for such personnel to purchase voluntary pre-paid insurance.

MEMBERSHIP CLASSIFICATION CHANGES

Pinal County Medical Society — Harry B. Lehmberg, M.D. — Associate — (retirement) Jan. 1, 1958 — dues exempt

The Pinal County Medical Society requests of council, associate membership status dues exempt, for Harry B. Lehmberg, M.D., on the basis of his retirement, effective Jan. 1, 1958.

Maricopa County Medical Society

Maricopa County Medical Society, by letter dated April 17, 1958, reported granting affiliate membership to Murray Rosen, M.D., account

residency training at Sawtelle veterans' administration hospital, Los Angeles, effective June 26, 1957. Doctor Rosen received his doctor of medicine degree from the University of Amsterdam, July 12, 1952. If approved, he would retain his state active status, dues exempt, effective as of the date aforementioned, account postgraduate residency training.

Maricopa County Medical Society, by letter dated April 17, 1958, reported granting affiliate membership to Joy Webster, M.D., November last, account retirement from active practice. If approved, her state membership classification would be that of associate, dues exempt, effective Jan. 1, 1958, account retirement.

It was moved and seconded and unanimously carried that all these membership re-classifications be approved.

Membership Report — Dues Delinquents

It was reported that 23 members of this association became delinquent in payment of their 1958 dues, as of April 1, 1958.

COMMUNICATIONS

American Association of Medical Assistants

Juanita Ainsworth, president, Texas Medical Assistants Association, by letter dated Feb. 17, 1958, reported the formation of the American Association of Medical Assistants, expressing a desire to assist in forming similar component groups in Arizona, should a desire therefor be indicated.

Maricopa County Medical Society — Glendale and Maricopa County Osteopaths vs. Doctors of Medicine

Charles Van Epps, M.D., chairman, Professional Committee, Maricopa County Medical Society, by letter dated April 10, 1958, advised:

"The professional committee has, after careful investigation, been unable to secure any evidence supporting the complaints made in your letter of Jan. 14 that doctors of medicine are not available for night calls in the Glendale area, and that they are collaborating with osteopaths."

This report is in response to request of council following action taken Nov. 24, 1957, that Maricopa Society investigate the charges made by certain citizens of Glendale as to such conditions prevailing in that community.

Wisconsin Resolution — Scholarship awards in science fields by federal government

Thomas H. Bate, M.D., secretary-treasurer, Board of Medical Examiners, State of Arizona, by letter dated April 28, 1958, referred for council consideration, with the recommendation that the membership be apprised thereof, a resolution recently adopted by the Wisconsin Board of Medical Examiners as follows:

"The Wisconsin State Board of Medical Examiners has recognized the intent of the federal government to award scholarships and various financial awards to deserving and exceptional students in the field of science. It is very possible that many college students in the pre-medical sciences will transfer their studies from those leading to a medical degree to those concerned with nuclear science and inter-planetary physics. We believe this will lead to a reduction in the quality or number of medical students and, eventually, of available physicians in our country.

"Therefore, this board recommends that equivalent scholarships and, or, financial inducements be given to students in the general field of science to the end that they may pursue a course leading to the degree of Doctor of Medicine according to their inclinations without being influenced by purely financial considerations."

No action taken.

Arizona Pharmaceutical Association—Resolutions

Four (4) resolutions passed by the Arizona Pharmaceutical Association, April 14, 1958, were referred to council for its information and consideration dealing with (1) #21 urging all governmental agencies and officials to recognize the desirability of utilizing established private channels of distribution for prescription medication when releasing any new preparation for public use; (2) #23A regarding free choice of physician and pharmacist by the patient; (3) #23B urging adoption of type of refill instruction box on prescription blanks for legend drugs or other potentially dangerous drugs; and (4) #24 urging reporting of (a) all cases of proved counter prescribing, (b) instances of prescriptions of certain doctors channeled through one pharmacy; (c) matter of trunk lines running directly from the doctor's office to a certain pharmacy; and (d) problem of detail men quoting prices to doctors which are lower than charged by drug stores, thus causing difficulty and misunderstanding.

SPECIAL INVESTIGATING COMMITTEE ON MEDICAL PRACTICES

Gus R. Burns, president, Winslow Memorial

Hospital, by letter dated April 28, 1958, requested a friendly survey be made by a specialized team from The Arizona Medical Association, Inc.

Discussion ensued, with Doctor Melick reviewing the activities of the special investigating committee on medical practices from inception to date. Doctor Melick then appointed a survey team to review the problems pertaining to Winslow, as follows: Carlos C. Craig, M.D., chairman (Phoenix); Lindsay E. Beaton, M.D. (Tucson); W. Albert Brewer, M.D. (Phoenix); Walter Brazie, M.D. (Kingman); Charles W. Sechrist, M.D. (Flagstaff); and Donald F. DeMarse, M.D., northeastern district councilor (Holbrook).

PARKVIEW HOSPITAL, YUMA — STAFF PRIVILEGES

Doctor Podolsky sought advice of council pertaining to staff privileges on a contribution basis by the new Parkview Hospital in Yuma. It was suggested that a resolution be presented to the house of delegates presenting the views of the Yuma doctors.

ARIZONA INDUSTRIAL COMMISSION FEE SCHEDULE

DOCTOR BEATON: "I thought rather than have a repetition of last night's discussion, that I would try to draw up a motion that might embody all of the different points that were raised. The fee schedule proposed by the commissioners is certainly not satisfactory to a large majority of the physicians throughout the state and yet, we can't stop caring for patients — we are not about to go on a strike against the patient. We couldn't even do something like refusing to make out forms, which would throw the industrial commission into a complete state of increased confusion, but which would also keep the injured workman from getting any of his compensation benefits. Another part of the dilemma is that certainly we've got to show the commission that we are serious in our thinking about our adequate fee schedule. These considerations have entered into the motion that I am about to make; other considerations have, also. I have felt that the motion should embody previous council action; and previous council action was to the effect that if an adequate fee schedule was not arrived at by the time of this meeting, the association would withdraw the services of the industrial relations committee from the commission. I felt that another consideration was that the physicians throughout the state, since we've led them on for a year and one-half, have a right to know what has finally come about. Finally I have been informed by a majority of the industrial relations committee that they think that we should accept this offer at least in part, though it is my personal feeling and certainly the feeling of many of the other men at this table, that anything we do has got to indicate that we are not satisfied with this fee schedule and that this fee schedule is not a proper and realistic one. With these thoughts in mind I have, therefore, drawn up the following motion which may be rather long, but seems to require this much length in order to contain all these points:

It was moved and seconded and unanimously carried that council inform the Industrial Commission of Arizona that its new offer for fee schedule revision:

$ 7.50	Initial Examination
$ 4	Hospital Visit
$ 4	Office Call
$15	Consultation

Relative Value Schedule x 400 per cent

will be accepted *only* as an interim agreement to provide for

(1) acceptance of the relative value schedule system, and

(2) some immediate increase in payments to physicians caring for industrial commission clients; with the proviso that no present fee for any procedure be reduced when the new schedule is adopted, assumedly on July 1, 1958.

Further, that the association inform the Industrial Commission of Arizona that acceptance of its offer is contingent on continued negotiation toward a realistic fee schedule, either directly between the industrial commission and the association's fee and contractural medicine committee, or by the appointment of an arbitrator mutually acceptable to the industrial commission, The Arizona Medical Association, Inc., and the employer-policyholders.

Further, that, since the association cannot approve the fee schedule as presented by the Industrial Commission of Arizona, the Industrial Commission of Arizona be informed that its industrial relations committee for 1958-59 will be instructed not to adjudicate any disputes be-

tween physicians and the Industrial Commission of Arizona or to advise the Industrial Commission of Arizona concerning fee matters, but only to continue its function as medical advisory board of the industrial commission so as to expedite the care and disposition of cases of injured workmen.

Further, that the association does not disapprove the action of any organized medical group in the state in withdrawing official approval from the industrial commission fee schedule, or in any other fashion pressing for more adequate fees.

Further, that the entire content of this motion be transmitted to the commissioners of the Industrial Commission of Arizona for their information and to the house of delegates by the chairman of council in his report at the first house session on May 1, 1958.

Meeting adjourned.

LESLIE B. SMITH, M.D.,
Secretary

RESOLUTIONS ADOPTED BY THE HOUSE OF DELEGATES, ARIZONA MEDICAL ASSOCIATION MAY 1958

THE legislation committee of the state association is to act toward providing legal requirements that "no more than 1 per cent lead content be allowed in paint for toys, nursery furniture or interior of dwellings to be sold in Arizona."

2. The Arizona Medical Association condemns the compulsory assessment of staff members and/or staff applicants by hospitals in fund raising campaigns.

3. That the constitution and by-laws committee revise both, in order that each may be brought up to date and in conformity with one another.

4. That the budget for 1958-1959 as submitted by the treasurer be adopted, allowing for expenditure of $50,144.40.

REGISTRATION — 1958 ANNUAL MEETING

County Medical Society	*Total Membership*	*No. of Members Registered*	*Per Cent of Members Registered*
Apache	3	1	33
Cochise	25	5	20
Coconino	15	4	26
Gila	22	4	18
Graham	8	4	50
Greenlee	6	1	17
Maricopa	504	146	29
Mohave	2	2	100
Navajo	6	3	50
Pima	258	61	24
Pinal	30	14	48
Santa Cruz	8	2	25
Yavapai	21	8	39
Yuma	32	5	16
Non-Members — Including guest orators, VA, interns, military, out-of-state doctors, etc.		49	
Total Registration Of Medical Doctors		309	

NEW LEGISLATION

College Housing Loans

SENATOR Clark (D., Pa.) would make available $250 million in loans at the going federal rate of interest for building or renovating classrooms, laboratories and other facilities. Eligible would be institutions offering at least a two-year program acceptable for full credit toward a baccalaureate degree. While the bill does not specify, it is presumed medical schools would be eligible. Under present law, teaching hospitals are eligible for college housing loans; they would not be under the Clark bill (S 3713).

International Health —

Senator Purtell (R., Conn.) seeks to give the surgeon general of the public health service a clearer and more adequate definition of his responsibilities and authority in the field of international health. Senator Purtell said he wanted to give particular attention to the promotion of international co-operation in the exchange of scientific information and assistance (S 3727).

Maritime Medical Care —

Senator Magnuson (D., Wash.) would amend the law so that masters and owners of vessels of U.S. registry would be eligible for medical, surgical and dental treatment and hospitalization

premenstrual

'DIURIL'
(CHLOROTHIAZIDE)

FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

". . . in premenstrual edema, convenience of therapy points to the selection of chlorothiazide, since it is both potent and free from adverse electrolyte actions." In the vast majority of patients, 'DIURIL' relieves or prevents the fluid "build-up" of the premenstrual syndrome. The onset of relief often occurs within two hours following convenient, oral, once-a-day dosage. 'DIURIL' is well tolerated, does not interfere with hormonal balance and is continuously effective—even on continued daily administration.

DOSAGE: one 500 mg. tablet 'DIURIL' daily—beginning the first morning of symptoms and continuing until after onset of menses. For optimal therapy, dosage schedule should be adjusted to meet the needs of the individual patient.

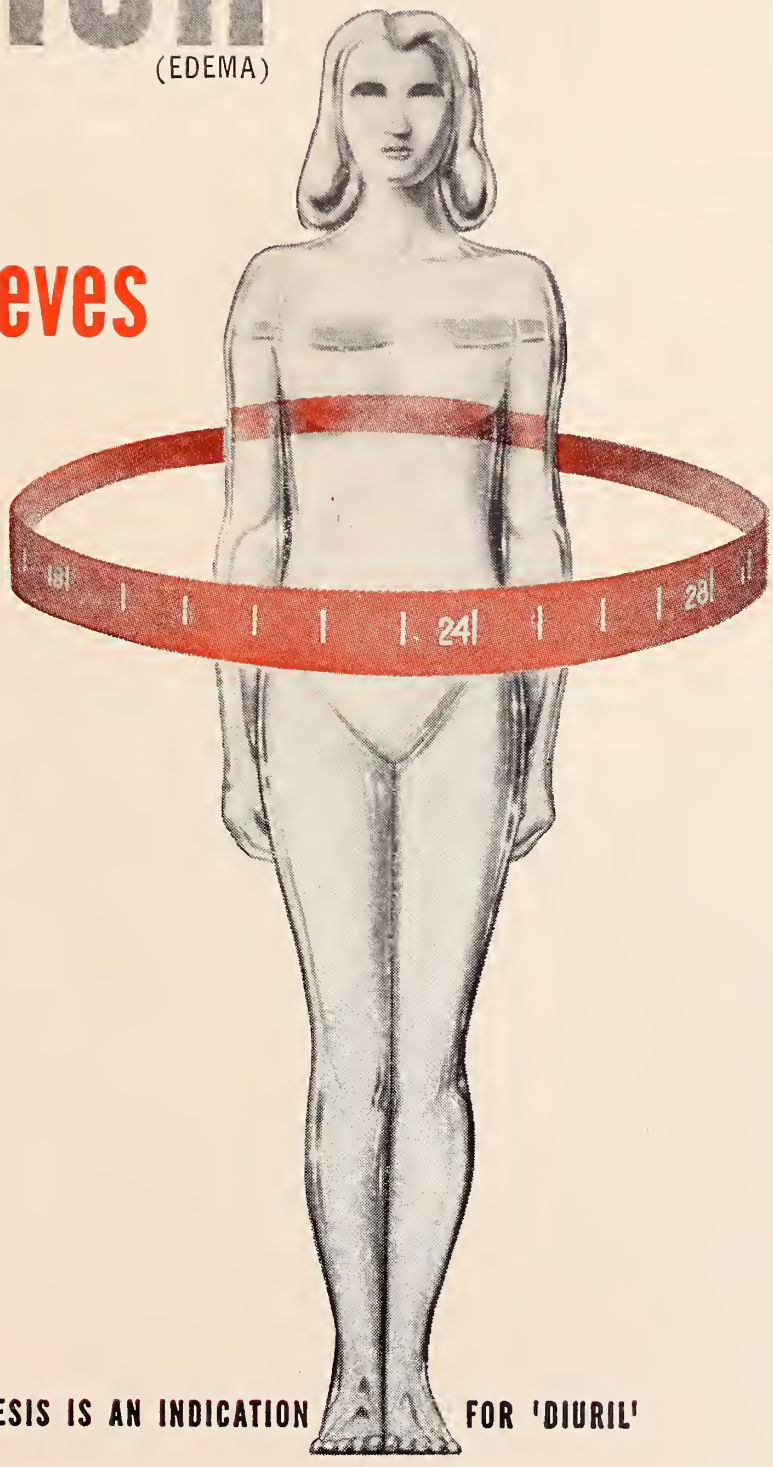
SUPPLIED: 250 mg. and 500 mg. scored tablets 'DIURIL' (chlorothiazide); bottles of 100 and 1,000.

DIURIL is a trade-mark of Merck & Co., Inc.

MERCK SHARP & DOHME Division of MERCK & CO., INC., Philadelphia 1, Pa. MSD

tension
(EDEMA)

quickly relieves
Distress
Distention
Discomfort



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR 'DIURIL'

in PHS installations, just as in the case of employed seamen. The bill is S 3724.

Vets' Disability Rating —

Under a bill, HR 12056, by Representative Siler (R., Ky.), a rating for any service-connected disability which has been in effect for 10 years or more would not be reduced thereafter, except upon showing that the rating was based on fraud. The measure also would provide that a service-connected disability which has been in operation 10 or more years but which has been reduced in that period would not be reduced further.

Indian Sanitation —

Representative Rhodes (R., Ariz.) would give the PHS surgeon general authority to obtain from interior department government-controlled, Indian-owned lands for building, improving or extending community, water and sanitation facilities for benefit of Indian tribes. His bill is HR 12100 and is identical with HR 12134 by Representative Westland (R., Wash.).

Union Welfare Funds —

Senator McClellan (D., Ark.) proposes to require the registration of labor unions and labor relations counsellors and the observance of minimum standards in bylaws of unions. Name and title of each person responsible for administration of any trust in which a union is interested, including health and welfare funds, would have to be supplied the secretary of labor, along with other pertinent information. The bill is S 3618.

Diabetes Grants —

Senator Anderson (D., N.M.) in S 3690 would authorize grants to state or local agencies, universities, hospitals and laboratories for projects pointing toward the detection and control of diabetes and for rehabilitating persons suffering from the disease.

Public Assistance —

As an anti-recession measure, HR 11678 by Representative O'Neill (D., Mass.) would set up a fifth category of public assistance recipients for those needy persons not now eligible. General assistance is defined as money payments for medical care "or any type of remedial care . . . in behalf of needy individuals or families." . . . Representative McCormack (D., Mass.) under HR 11703 would eliminate the 1956 restrictions, but not disturb the increases in medical care payments. Prior to the 1956 changes, states were permitted to include money for medical care in their direct payments to recipients, or to provide the care by making payments directly to the vendors of the medical services. Now states operate either under the old arrangement or a new system of direct vendor payments with federal participation limited to $3 per adult and $1.50 per child recipient . . . S 3685 by Senator Yarborough (D., Texas) would (1) increase federal participation in the four public assistance programs, (2) increase U.S. payments for medical care to $5.33 per month for each adult and $2.67 for each child and (3) provide for the U.S. to pay half the cost of administering these activities.

Hill-Burton —

Senator Langer (R., N.D.) would amend the Hill-Burton hospital construction program to extend eligibility to nonprofit corporations or associations that have a contractural affiliation with a nonprofit hospital. The number is S 3699.

Aid to Education —

Representative Knutson (D., Minn.) is urging enactment of a mammoth grants bill calling for expenditure of $100 billion over 10 years for grants and loans to stimulate primary and secondary school construction, improve teaching and set up a nationwide school health program. The school health program would cost $2 billion over the 10 years. Half the health fund would be apportioned among states on the basis of the number of school-age children in each state, and the other half would go as grants to finance research in child health and to establish pilot programs for detection, control and treatment of children with health problems. The health section of the program would provide (a) medical, dental and mental health services to school children, (b) establish school health clinics and mobile clinics for rural areas, and (c) initiate programs to combat health problems prevalent among children. The number is HR 11960.

Veterans' Benefits —

In HR 12001, Representative Siler (R., Ky.) would authorize emergency outpatient treatment by veterans' administration for any veteran, whether the condition is service-connected or not, if the veteran is receiving a pension or compensation. Also, VA would be authorized to reimburse any such veteran for emergency outpatient expenses incurred at a non-VA hospital.

Military Pay —

The military pay raise bill leaves intact the

incentive pay schedule for medical personnel.

Civilian Pay —

A senate-passed federal civilian employe pay raise bill that is pending before the house, raises salaries for medical personnel in veterans' administration between $500 to $1,100 per year, sets the extra allowance for specialists at 15 per cent of base pay, and lists optometrists among auxiliary medical personnel, not among physicians.

Unemployment Compensation —

An emergency bill to extend the period for which unemployment compensation can be paid was up for action in the house; this, however, would not extend coverage to all employers (doctors included) as would two other bills on the subject. The Eisenhower administration has come out in support of the bills to make all employers liable, but at press time no action had been taken.

Defense Reorganization —

The house armed services committee is holding hearings on an administration bill that would reorganize the defense department; one effect would be to down-grade the position of assistant secretary for health and medical matters to that of special assistant to the secretary.

Union Welfare Funds —

Hearings were due to start on the house side on a senate-passed bill that requires registration and publicity for union and union-management pension and welfare funds, including health plans.

Civil Defense Shelters —

Chairman Holifield's house subcommittee has started hearings on data obtained from atomic shelter tests conducted during the last year; these hearings may decide the fate of the proposed nationwide shelter program.



LEGISLATIVE BOXSCORE 85th CONGRESS, SECOND SESSION JUNE 1958

THIS boxscore is designed to bring you up to date on the more important health measures pending in congress. A noticeable pickup in activity has occurred since the May 2 boxscore, and the tempo is expected to increase from now on. A summary of the bills listed here is contained in Special Report 85-9. Bills not enacted into law die with this congress; many of them will be introduced anew in the 86th congress convening next January.

No action: Grants and scholarships for nursing (HR 306); national compulsory health insurance (HR 3764); health insurance pooling (HR 6506 and HR 6507); public assistance amendments (HR 10730 and HR 11703); rehabilitation (HR 10608) and S 3551).

Subject	*Bill No.*	*House*	*Senate*
Public works loans	S 3497	Reported June 4	Passed April 16
Civilian pay (VA doctors)	S 734	Passed June 2	Passed February 28
Military pay	HR 11470	Public Law 85-422, May 20	
Public health school grants	HR 11414	Passed May 5	In committee
HEW appropriations	HR 11645	Passed March 27	Hearings held
Union health plans	S 2888	In committee	Passed April 28
Medical care for aged	HR 9467 and others	Hearings June 16 to 27	
Medical school aid	HR 6874 S 1917	Hearings held	In committee
Chemical additives	HR 6747 S 1895	Hearings held	In committee
Aging conference, bureau of older persons	HR 9822 and others	Hearings held	
Jenkins-Keogh taxes	HR 9 and 10 S 3194	Hearings held	In committee
Hill-Burton changes	HR 12628 HR 12694	Subcommittee approval	
Civil aviation medicine	S 1045 HR 4275		Hearings held
Unemployment compensation	HR 12065	Public Law 85-441, June 4	
Defense reorganization	HR 12541	Reported May 22	
Medicare appropriations	HR 12738	Passed June 5	

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SIGN OF GOOD TASTE

A MEDICAL SCHOOL FOR ARIZONA?

By Dr. Richard Harvill
President, University of Arizona

MEDICAL schools now have fewer applications for each vacancy than at any time in recent years. With decreasing selectivity in admissions, the schools nevertheless graduate a larger proportion of entrants than ever before. Today's medical students seldom hear the old threat: "Half of you in the freshman class will not be here to graduate." The slump in medical education is no doubt temporary. Those who look far ahead are even now encouraging the establishment of new medical schools. From such sources those who are advocating a medical school for Arizona are receiving support.

Some of our friends are asking: "Why do you not beat the drums for a medical school at the university?" Here is the answer.

The people of Arizona have a right to expect from their institutions of higher education leadership that subordinates local ambition to sound educational policies. That is why I do not advocate a medical school at this time, and why I feel obligated to point out the following pertinent facts.

1. Costs of the present program of higher education in Arizona are rising rapidly because of (a) a national shortage of qualified faculties, willing to accept present salary scales, (b) booming enrollments, and (c) the general rise in building costs and commodity and labor prices.

2. The tax structure in Arizona has not produced tax income sufficient to meet adequately the needs of state institutions, or specifically to increase support of higher education to within striking distance of the national average. We are at the bottom of the list of comparable universities in cost per student.

3. Against this background of rising costs and still inadequate state support, all three institutions are painfully aware that the population bulge of the '40s will reach us by 1960, bringing extremely sharp increases in budgetary requirements to provide for present curricula.

4. To urge establishment of a medical school, the most expensive of all university programs, at this time would be irresponsible leadership. The outcome could easily be an inferior, unaccreditable medical school and a weakened system of higher education in Arizona. A few states with populations smaller than Arizona have medical schools. These have all experienced extreme difficulty in maintaining accreditation, and in every case other basic divisions of the institutions have been neglected. Medical schools commonly absorb 20 to 38 per cent, and more, of the total teaching budgets of the parent institutions.

5. The "want" for a medical school is greater than the "need," since the plan operated by the Western Interstate Commission on Higher Education, as adopted and liberalized by the Arizona legislature, now provides medical education for every qualified Arizona student. WICHE has stated that there are more spaces available for qualified exchange students than can be filled at existing levels of state appropriations. Arizona's appropriation always has been sufficient to support every Arizona student who has applied for assistance and who has been accepted in a medical school. Each year we have turned back unused funds.

COSTS OF MEDICAL SCHOOLS*

	CAPITAL	OPERATION
Two-year medical school	$4 to $6 million	$500,000 annually
Four-year medical school	$20 million	$2 million annually

*Estimates included in a resolution passed May 3, 1958, by the Arizona Medical Association, as reported in *The Arizona Republic* of May 4, 1958.

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MEDICAL SCHOOL HEARINGS END; EXECUTIVE SESSIONS BEGIN

THE health subcommittee of the house interstate committee concluded hearings April 29 on a variety of bills for federal construction grants to medical schools. The next day it began executive consideration of three other health related measures (chemical additives in foods, milk standards and redefining chemical preservatives), and prepared to tussle with the medical school bills. Chairman John Bell Williams noted the hearings were ending with a major question still to come — the Powell amendment which would deny federal funds where segregation is practiced.

The subcommittee has the job of writing a bill that will come close to satisfying a variety of views on medical school aid. No witness heard during the three days raised any objection to federal aid, but the same can't be said for congress.

Surgeon General Burney testified as the final witness with these highlights: (1) opposition to inclusion of schools of podiatry or veterinary medicine on grounds the greater need is for medical schools, (2) opposition to the 5 per cent increase in freshmen enrollment feature of several bills in exchange for more U.S. aid, a position identical with that of the American Medical Association, (3) a pledge that no operating funds would be requested, and (4) no decrease foreseen in the next decade in the physician-population ratio.

Dr. Aims C. McGuinness, special health assistant to Secretary Folsom, testified many schools are outmoded in their physical plants and badly in need of replacement.

MEDICAL SCHOOLS PLEA FOR HIGHER ALLOWANCE FOR OVERHEAD COSTS

A STRONG plea has been made to the senate appropriations subcommittee for allowing up to 30 per cent for overhead costs in carrying out research programs with federal funds. The case for medical schools was presented to the subcommittee by Dr. John B. Youmans, dean, Vanderbilt University School of Medicine, and immediate past president, Association of American Medical Colleges. The administration asked for an increase to 25 per cent but this was denied by the house. The matter can still be adjusted by the senate, in which case the bill would go to conference for a possible compromise.

The witness maintained that medical schools are dong the bulk of research, while at the same time trying with limited funds to improve their regular teaching programs. "The medical schools . . . should not be required to use their own limited funds for the indirect costs of this research, money which they cannot afford and which impairs their ability to maintain an adequate program of medical education . . ."

From three other physician witnesses — Drs. Philip Handler of Duke University, Carroll Williams of Harvard Medical School and Robert A. Aldrich of University of Washington Medical School — the subcommittee received a plea for more National Institutes of Health funds for basic research. Dr. Handler, speaking for the Federation of American Societies for Experimental Biology, proposed at least $20 million for fundamental research projects and $10 million for training grants in the basic medical and biological sciences. "Fruitful clinical investigation may shortly have gone as far as our basic knowledge of biology permits."

MEDICAL SCHOOL NEEDS SET AT $275 MILLION

THE American Association of Medical Colleges has informed the health subcommittee of the house interstate committee that the country's 85 medical schools will require $275 million for rehabilitation and new construction in the next few years; about $25 million is needed for rehabilitation. Dr. Lowell T. Coggeshall, president of AAMC, said the total does not include needed research and hospital construction. A recent AAMC survey shows that if medical school construction needs could be satisfied, they would be able to increase their current output of physicians from about 7,000 yearly to 8,000.

ABSTRACTS

FROM time to time, as space permits, this Journal will publish abstracts from the world medical literature prepared monthly by Farley Manning Associates for the Upjohn Company of Kalamazoo. Review of the package for April discloses 20 abstracts of articles, 18 published in U. S. A. journals, and two in British journals. The diversity of selection is what an investment counsellor would call safe enough. The reviewer's attention is particularly engaged by the paucity of huckstering. In only six of the 20 abstracts is mention made of an Upjohn product and then simply to name the product parenthetically. Maybe this sets some kind of record, but anyway it is agreeable to discover another service from a pharmaceutical house — a service without a gimmick or at least only a teeny little one. Any Upjohn abstracts published in this journal will be identified as such — but trade names of products will be deleted and in their place may appear a notice: (see paid advertisement, this page). C.R.

THE NEPHROTIC SYNDROME AND OTHER STEROIDS

CLINICAL OBSERVATIONS ON THERAPY WITH PREDNISONE

Upjohn abstract

ONE TO three years after treatment with prednisone or hydrocortisone, 12 of 20 patients who had had the complete idiopathic nephrotic syndrome characterized by proteinuria, edema, hypoproteinemia, and hypercholesteremia are well; four are improved, and four are not improved, or dead. Such treatment proved ineffective in an additional patient with the nephrotic syndrome due to renal amyloidosis and in three patients with proteinuria but without the hypoalbuminemia and hyperlipoidemia seen in the classical nephrotic syndrome. In this series of patients, there was no essential difference in the effectiveness or side effects of prednisone and hydrocortisone; the response to therapy in adults did not differ greatly from that in children, and microscopic hematuria or moderate renal insufficiency did not necessarily preclude a good response.

Although there was variation in the dosage requirement from one patient to another, the therapeutic regimen found effective for most of the patients was 40 mg/day of prednisone or 160 mg/day of hydrocortisone for as long as necessary to achieve the maximum clearing of proteinuria and increase in serum proteins. In most cases, the dosage could be gradually reduced after three to five weeks of treatment. In responsive patients, a diminution in proteinuria was noted within the first 10 days of treatment. In six patients who responded well to treatment but relapsed at various times after the cessation of therapy, a repeat of the initial regimen proved effective. Only one patient needed maintenance for recurrent relapses; in this patient, maintenance dosage below full therapeutic dosage was not successful. All of the patients were placed on a diet containing approximately 200 mg. of sodium and 2 to 3 gm. of potassium per day during steroid therapy. Children were given prophylactic penicillin (250,000 to 500,000 units/day by mouth) throughout the period of disease and for six months to one year after remission. Antibiotics for adults, and antibiotics other than penicillin, were given only upon specific indication.

The quantitative determination of 24-hour urine protein proved to be the most sensitive and satisfactory means of following the day-to-day course of the patients, especially for the recognition of remissions and exacerbations. No evidence of benefit was noted when the dosage was insufficient to decrease the proteinuria.

Goodman, Howard C.; Baxter, James H. (Lab. of Cellular Physiology and Metabolism, Nat. Health Inst., Nat. Inst. of Health, Bethesda, Md.) JAMA 165:1798-1808 (Dec. 7) 1957.

Editor's note: No comment.

THE CITRATE METHOD OF BLOOD TRANSFUSION IN RETROSPECT

Upjohn abstract

IT WAS in January 1915, that the author sug-suggested that a small amount of sodium citrate (0.2 per cent) be used instead of a 1 per cent mixture as an anticoagulant in the transfer of blood from donor to recipient. Such a mixture prevented coagulation of the blood outside the body for two days or longer. He found that it was safe to introduce 5 gm. of sodium citrate into an adult. Introducing citrated blood caused a temporary shortening of the coagulation time of the recipient's blood.

Although the apparatus for a citrate transfusion was simple, the cumbersome syringe methods continued to be popular for 20 years after the citrate method was published. The citrate method found favor when the use of

stored blood was introduced in the 1930s, since stored blood had to be mixed with an anticoagulant. It was shown that post-transfusion chills were not caused by any chemical, but by pyrogens due to lack of care in cleaning all of the instruments used in performing a transfusion.

The 0.2 per cent dose of sodium citrate allows the transfusion of as much as 2,500 cc. of blood at a time, and larger doses may be given when the blood is injected slowly. When very large transfusions of citrate are given, it is advisable to give an intravenous injection of 10 cc. of a solution of 10 per cent gluconate after each 1,000 cc. of sodium citrated blood in order to compensate for the calcium bound by the citrate. Now that surgery of the heart and shunting operations for esophageal varices are performed and require very large amounts of blood, fresh heparinized blood is used. Heparin transfusion still requires a great deal of improvement, but it is used because (1) large amounts of citrate are toxic, (2) large amounts of bank blood cannot replace the platelets lost from bleeding during the operation, and (3) injection of protamine sulfate will rapidly neutralize the bleeding that may result from heparin.

Lewisohn, Richard (New York, N. Y.) Surgery 43:352-327 (February) 1958.

Editor's note: Remember those happy days, when the least you got for a pint of your blood was 50 beautiful bucks? Too bad, kids.

STEROID INHALATIONS IN ASTHMA

CHRONIC ASTHMA TREATED WITH POWDER INHALATIONS OF HYDROCORTISONE

Upjohn abstract

A BLIND trial of oral inhalation of hydrocortisone acetate powder, prednisolone powder, or a placebo showed that hydrocortisone gave effective relief to 70 per cent of patients suffering less severe chronic asthma, while prednisolone and the placebo were ineffective for this use.

The powder for inhalation was packaged in capsules, which were punctured at one end and placed in a squeeze-type inhaler. Patients were instructed to use the inhaler three times daily, inhaling through the mouth, regardless of the severity of their coughing or sneezing. Only one squeeze was permitted on each use of the inhaler, and in this way one capsule lasted five days. Hydrocortisone capsules contained 15 mg. of the steroid, so approximately 2 mg. of the medication per day was administered. Prednisolone capsules contained 5 mg., with 1 mg. per day being administered.

The beneficial effects of the hydrocortisone must have resulted from a local action on the bronchial tree, and not from systemic absorption of amounts as small as were obtained from oral inhalation. A possible explanation for the difference in the value of hydrocortisone acetate and prednisolone could be that the former is insoluble in water, whereas prednisolone is slightly soluble. Previous trials using a solution of hydrocortisone hemisuccinate had produced no noticeable improvement in similar cases, and it is postulated that the solution was too rapidly absorbed to produce the beneficial effect of longer contact with the bronchial mucosa itself.

Brockbank, William; Pengelly, C. D. R. (Manchester Royal Infirmary) Lancet 1:187-188 (Jan. 25) 1958.

Editor's note: Look for that new powder inhaler delivering just the right grammage per suck! Any bets on who gets there first?

HYPOGONADISM

HORMONAL THERAPY VERSUS WATCHFUL WAITING IN HYPOGONADISM: THE MALE

Upjohn abstract

THIS IS a plea for early institution of gonadotropic therapy for the young male with hypogonadism, not only because some patients will not respond if therapy is delayed too long, but also because treatment in childhood is necessary to prevent psychologic aberrations and to permit more nearly normal psychosexual development. Several victims of the policy of watchful waiting are reported. Some gonadal response can still be achieved if the epiphyses are still open, but the response becomes less as therapy is delayed and irreversible hypogonadism may result if treatment is delayed until after the epiphyses are closed.

The clinical evaluation of the patient suspected of hypogonadism is discussed. It is pointed out that correction of a hypothyroid or hypometabolic condition may be followed by normal gonadal development. Triiodothyronine seems to provide rational replacement therapy in the hypometabolic syndrome, and it acts much faster than other forms of thyroid hormone.

The authors believe that hormonal therapy is indicated for a child of eight who shows evidence of frank hypogonadism. Hypogonadism that is detected at the age of 10 to 12 years should be treated at that time. Delaying endocrine treatment until the age of 18, 20 or 30 years will often result in a poor response in the patient who might otherwise have been offered an excellent prognosis. Gonadotropic hormone rather than steroid hormones should be used. It will accelerate penile and testicular development in cases of hypogonadism and not have any adverse effects upon the future height or function of the patient. The possibility of testicular failure must be considered if a patient does not respond to the recommended doses of chorionic gonadotropin; replacement therapy with androgenic steroids will not reverse the infertility in such cases, but it can stimulate adequate anatomic development.

Kupperman, Herbert S.; Epstain, Jeanne A. (Depts. of Therapeutics and Med., N. Y. U. Post-Grad. Medical Sch.; the Fourth Med. Div. Endocrine Clin., Bellevue Hosp.; and Endocrine Clin., Beth Israel Hosp., New York, N. Y.) Am. Geriat. Soc., J. 6:87-98 (February) 1958.

Editor's note: How this article found its way into the Journal of the American Geriatric Society is somewhat baffling. Hans Lisser's dictum, "Old enough to be teased, old enough to be treated" might be paraphrased, "Too old to be pleased, too old to be treated."

SALT AND HYPERTENSION

SODIUM INTAKE OF THE AMERICAN MALE: IMPLICATIONS ON THE ETIOLOGY OF ESSENTIAL HYPERTENSION

Upjohn abstract

CONFIRMATION of the accepted average intake of sodium per day in humans (5 to 15 g.) was provided by measurement of sodium excretion in 24-hour urine collections of 71 adult ambulatory, working males. The mean 24-hour sodium excretion was shown to be 180 meq, or approximately equal to 10 g. of sodium chloride per day.

In a previous publication, the author discussed his thesis regarding the excessive intake of salt in the etiology of essential hypertension. In support of this thesis, the present discussion cites the prevalence of hypertension among West Indian Negroes, who are known to have high salt intakes even from early childhood. Conversely, there was a low incidence of hypertension among primitive ethnic races. A common factor noted, despite widely different geographical situation and environment, was the low sodium intake known to exist among all of these races.

Dahl, Lewis K. (Med. Dept., Brookhaven Natl. Lab., Upton, N. Y.) Am. J. Clin. Nutrition 6:1-7 (January-February) 1958.

Editor's note: Does ethnology elucidate physiology?

STEROIDS IN TUBERCULOSIS

TREATMENT OF PULMONARY TUBERCULOSIS WITH ACTH AND CORTISONE IN ADDITION TO SPECIFIC ANTI-TUBERCULOSIS THERAPY

Upjohn abstract

CORTISONE and corticotropin, given under antibiotic coverage, can be used safely for treating exudative fresh lesions in pulmonary tuberculosis. Fresh cases given such combined treatment for two or three months showed (1) sputum conversion in 75 per cent and (2) more rapid radiological disappearance or considerable absorption of the exudative changes than has been observed in patients given only antibiotics. Hormonal treatment had almost no effect in chronic cases, except for the rapid and dramatic improvement in general condition of patients in both groups. The addition of cortisone made antibiotic treatment possible in cases where it had previously not been tolerated. No patient's sputum was converted to positive, either during or after combined treatment, and no complication occurred that made it imperative to interrupt treatment.

Twenty-nine patients with pulmonary tuberculosis and four patients with severe asthma plus inactive pulmonary tuberculosis or cystic lung disease were treated for two to three months with prednisone, cortisone, or corticotropin plus antimicrobial therapy (streptomycin plus PAS plus isoniazid). The younger patients (three to 40 years) usually received corticotropin, while the older patients (40 to 68 years) and those with severe chronic tuberculosis usually received cortisone or prednisone. The schedules started with daily doses of 20 mg. of prednisone, 100 mg. of cortisone, or 60 mg. of corticotropin for the first five to 10 days, after which dosage was gradually reduced. Giving the hormones after the first two months had little effect on the radiologic findings.

The results of treatment in pulmonary tuberculosis were good in eight of 14 active, fresh

cases, i.e., cavities closed, infiltrations disappeared, and sputum became negative. The results were fair in the other six fresh cases, i.e., cavities diminished markedly, there was marked resorption of infiltrations, and the sputum became negative. Among the 15 cases of chronic tuberculosis, the results were good in one, were fair in seven, and showed no change in seven. In all cases, the temperature dropped to normal during the first few days and remained normal. The general condition showed more rapid and dramatic improvement than has ever been seen with antimicrobial treatment alone. Cough and expectoration diminished rapidly, especially in the fresh cases. The patients with severe asthma showed considerable improvement after two days, and improvement continued with small maintenance doses.

Treatment was discontinued in only one patient because of a complication; sugar appeared in the urine, but not in the blood. In order to prevent osteoporosis, an injection of 25 mg. of testosterone was given every two weeks to patients given hormones for more than two months. The authors regard the following as contraindications: Diabetes mellitus (exceptions may be made), hypertension, psychosis, ulcer of the digestive tract, uremia, and degenerative changes of the kidneys.

Jesiotr, M. (Malben Hosp. for Chest Diseases, Beer-Yacov, Israel) Diseases of the Chest 33:180-192 (February) 1958.

Editor will resist temptation to comment about the amazing phenomenon of sugar appearing in the urine but not in the blood.

MEDICARE

HOUSE COMMITTEE ACTION LIMITS FREEDOM OF CHOICE IN MEDICARE

THE HOUSE appropriations committee (May 28) voted a substantial reduction in funds for the civilian phase of defense department's Medicare program, from a requested $71.9 million to $60 million. The bill was scheduled to come up for debate in the house June 3. Unless reversed on the house floor or in the senate, the action means a limitation on the free choice of physicians and hospitals that has prevailed since Medicare was started in December 1956. To stay within the lowered budget ceiling, military officials will be forced to order civilians in the areas of most military hospitals to cease obtaining their medical care from civilian hospitals and physicians, and to go to military hospitals and consult military physicians. In the vinicity of military medical facilities, the effect probably will be to wipe out civilian Medicare. Nationwide, one out of every six dependents now receiving civilian care will be ordered to go to a military facility instead, inasmuch as civilian funds will be cut at least 17 per cent.

The committee and its defense department subcommittee voted for the change in the mistaken belief that more military beds must be used because care in military facilities is less expensive. This claim cannot be defended, as pointed out by AMA General Manager Blasingame in a letter to the subcommittee on April 25, because military cost figures omit many actual expenses, such as depreciation, fringe benefits, recruitment and training, etc., expenses which must of necessity be included in all civilian costs.

TEXT OF LETTER SENT TO CONGRESS ON MEDICARE PROGRAM COSTS

Following is the slightly condensed text of a letter sent to members of the defense department subcommittee of the house appropriations committee in an effort to convince them that the civilian phase of Medicare should not be cut back. A similar but briefer appeal also was sent to all members of the full committee.

"We are disturbed by a recent report that the defense subcommittee of the house appropriations committee is considering limiting the amount of civilian medical care military dependents may receive under the Medicare program. We understand economy is the motivation, namely that costs of the civilian phase of this program are described as exceeding budget expectations.

"We are convinced that this projected cutback in civilian medical care is based on insufficient and misleading information. We hope that the subcommittee will therefore give serious consideration to the following facts.

"We have been reliably informed that some subcommittee members were led to believe that when the authorization bill passed the house in March of 1956, the annual cost for civilian medical care was estimated at only $53.8 million. That was not the case.

"The record shows that in the hearings and during debates in the house, the estimated annual budget was repeatedly described as $76

million. Here are some of the citations":

(The letter then cites six seperate times during hearings, house debate, and committee report when the figure $76 million was used as the estimated annual cost of the civilian phase of Medicare. Title of the documents and page numbers are given.)

"Where, then, did the 'estimated cost' figure of $53.8 million come from?

"Page 44 of the printed hearings on HR 9429 (hearings before the committee on armed services, United States Senate, April 12 and 13, 1956) carries a table prepared to show 'the estimated first year annual cost, using the medical service plan provided by Blue Cross-Blue Shield facilities.' There the estimate of *$53.8 million* is given as the cost of caring for spouses and children of active servicemen. A comparable figure is carried on Page 9 of Senate Report No. 1878 (to accompany HR 9429) 84th congress, second session, in this sentence:

'. . . the Blue Cross-Blue Shield organizations estimate that the cost of providing the care authorized by the bill for the incidence of illness that would occur among the 40 per cent of the eligibles (who would use civilian care) is $52.2 million.'

"The significant thing is that the $53 million figure was used as an estimate, not of the cost of the program that finally was approved by congress and put into operation, but as the cost of a more limited medical care plan used by Blue Cross and Blue Shield as the basis of their cost planning before enactment of Medicare.

"At no time do the records available to us show that congress anticipated the cost would be under $53.8 million; the authorization was repeatedly stated to be $76 million. . . .

"Before any change is made in the matter of free choice in the Medicare program, we recommend that you call in the same people who made the original cost estimates and testified on them and who now are on the department of defense advisory committee established by the law authorizing Medicare — Dr. Donald Stubbs, Blue Shield medical care plan; Mr. Steven D. Williams, of the American Life Convention and the Life Insurance Association of America; Mr. E. A. Van Steenwyk, Blue Cross Commission. They could establish beyond a doubt just what the figures $53.8 million and $76 million did represent.

"At a meeting on May 9, 1958, this advisory committee *commended the defense department for keeping Medicare within the budgetary limits set by the law.* These consultants at the same time stated that the program was being administered the way the law intended it to be administered, and was being held within the true cost estimate.

"For information on comparative costs of care in civilian and military facilities, see the letter of April 25 to you from F. J. L. Blassingame, M.D., general manager of the American Medical Association."

Sincerely yours,
WILLIAM J. KENNARD, M.D.
Acting Director

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HOUSE RELENTS ON MEDICARE RESTRICTIONS; ISSUE NOW UP TO SENATE

AGREEMENT of house leaders to work out in senate-house conference an arrangement to "make everyone reasonably well satisfied" cleared the way for house passage of the Medicare appropriation, a controversial section of the defense department's appropriations bill. The bill, still containing destructive restrictions on civilian Medicare, has gone to the senate, but with the pledge of key house committeemen that when it comes back for conference they would adopt any necessary changes agreed to by the senate.

Sponsors of the restrictions went on record with their concessions after state medical societies and individual doctors sent scores of letters and wires to Capitol Hill, all protesting the restrictions on Medicare.

In the mistaken belief that care in military medical facilities is far less expensive than in civilian, and that Medicare was costing more than anticipated, the subcommittee had cut Medicare civilian funds from a requested $71.9 million to $60 million, and had instructed the defense department that it could spend no more than that amount on the program in the fiscal year starting July 1. To "save" the $12 million, more dependents would have to be sent to military hospitals, which already care for 60 per cent of them. These restrictions would wipe out civilian Medicare in all areas near military medical installations.

CASES REVIEW

AF 18013588

THE INFORMATION submitted regarding the charges for exchange replacement type blood transfusions (Code 2446, allowance $115) on successive days, Nov. 5, 6, 7, and 7, 1957, for the treatment of erythroblastosis fetalis on a newborn infant was presented to the combined committees for review.

It was moved, seconded and unanimously carried that we continue to follow the usual rule on paying 50 per cent on succeeding procedures; and that the doctor be paid the full allowance ($115) for the initial blood replacement transfusion and that for the next three consecutive transfusions he be paid 50 per cent ($57.50 each) of the scheduled allowance.

AF 19106957

The special report and DA Claim Forms 1863 on the above dependent were presented to the committee for review, in view of the unusual circumstances and complications arising in this case that additional compensation be authorized for his services.

It was moved and seconded and unanimously carried that we should continue to follow the same principle that has already been established, i.e. that the physician accept the difficult along with the unusual type of case; and that the fee contracted for T&A (code 2992) be paid only, namely $69.

AF 18356227

Case No. 3 on the agenda regarded extensive frontal scalp injuries and plastic repair, for which the physician has charged twice the Code 0276 allowed by the manual in the amount of $230. Doctor is asking additional $80 allowance for prolonged attendance. Thorough discussion ensued as to the factors, especially involving the similiarity of the other surgical procedures in which the patient, possibly in shock, had to be readied and transfused prior to surgery.

It was moved and seconded and unanimously carried that the prolonged attendance is not allowable above the fee authorized for the operative procedure; and that only the coded fee, 0276 times two ($230) be allowed on this case.

Meeting adjourned.

LESLIE B. SMITH, M.D., Secretary

ROBERT CARPENTER,
Executive Secretary

ANNUAL MEETING — BLUE SHIELD

THE 10th annual meeting of Arizona Blue Shield was held April 30 in conjunction with the 67th annual convention of the Arizona Medical Association at the San Marcos Hotel, Chandler.

The House of Delegates of the Arizona Medical Association, Inc., meeting as the corporate body of Blue Shield, elected new officers and board members, heard the annual reports of the Blue Shield president and the executive director and passed favorably on two resolutions extending Blue Shield benefits.

Officers for the coming year are Noel Gray Smith, M.D., Phoenix, president; Arthur C. Stevenson, M.D., Phoenix, president-elect; L. L. Tuveson, M.D., Phoenix, vice president; Carl A. Holmes, M.D., Phoenix, secretary, and E. N. Holgate, banker, Phoenix, treasurer.

Newly elected board members are: Judge Francis Donofrio, Maricopa County Superior Court, Phoenix; William G. Payne, M.D., Tempe; Marcy Sussman, M.D., Phoenix, and M. W. Phillips, M.D., Prescott. Board terms expire for the following: Virgil A. Toland, M.D., Phoenix, retiring president; Robert Macfarlane, insurance executive and former Blue Cross board member, Phoenix; Donald A. Polson, M.D., a past president, Phoenix, and Florence Yount, M.D., Prescott.

Everett W. Czerny, M.D., Tucson, was elected to the professional committee, surgical section, replacing Robert Hastings, M.D., Tucson, whose term expired.

Two resolutions which extend the Blue Shield benefits beyond present coverages were passed by unanimous vote. In-hospital medical coverages were expanded from the 30-70-120-day coverages presently in force in groups to 365 days for those electing to take it. This makes the program consistent with the 365-day Blue Cross comprehensive coverage. At the same time, so as to provide service benefits comparable to the present Blue Shield surgical coverages, in-hospital medical coverages can now be offered to all approved income limitation levels. This includes the $6,000 and $8,000 annual family income categories. In turn, the subscriber will pay more dues for the additional benefits and a higher allowance will be made to the participating physician. The schedule of allowances as prepared by the professional com-

mittee was also adopted. This resolution was presented by Joseph Bank, M.D., Phoenix.

The other resolution pertained to therapeutic radiology for both malignant and non-malignant cases and is available in groups. This augments the present diagnostic radiology and pathology endorsement first offered to groups in 1957. The two will be sold together. Benefits under this endorsement will include specific treatment for a broad range of malignant and non-malignant ailments with X-ray, radium, radon and radioactive isotopes. This extended benefit will be available to group members at an additional rate. It will be offered on a service benefit basis, and applies to those whose annual family incomes are $4,500, $6,000 and $8,000 who have subscribed to one of the coverages that fits their income.

Dr. Toland, in his presidential report, pointed up the progress and solid achievements of the plan during 1957. Outstanding was the extension of Blue Shield surgical coverages, including the Series 60 and 80 programs for group members. These additional endorsements provide service benefits for subscribers who have annual family incomes up to either $6,000 or $8,000. To meet increased public demand and competitive forces, the diagnostic X-ray and pathology endorsement was made available to group members on the basis of either $50, $75 or $100 allowances per year for each member of the family for a slight additional rate.

In-office surgery was added to all group contracts and group conversions during the year. A stipulation was made for payment to the assisting surgeon. This allows a payment of 20 per cent to the assisting surgeon of the schedule of benefits for major surgery as set forth in the schedule. This was done at a slight additional charge to the subscriber.

The board of directors, in consultation with representatives of many of the specialty groups, revamped the allowances under the schedule of benefits. A majority of the allowances was increased.

Advances were made in enrollment, internal operations, public relations and professional relations, according to Dr. Toland.

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*Sea food—source of highly potent allergens. Typical are: lobster; tuna; sturgeon roe; fish oil used to prepare leather, chamois, soaps; cuttlefish bone for polishing material and tooth powder; glues made from fish products.

Dr. Toland discussed Medicare in Arizona, saying, "Medicare came of age in Arizona in 1957, when, to the surprise of the government and ourselves, we discovered that we were one of the leading states in the number of cases and dollar amounts paid out for care of the dependents of men in the armed services. As fiscal administrator for Medicare in Arizona, checks totaling $661,639.34 for professional services alone were paid through Blue Shield to 649 doctors in Arizona who rendered care to almost 9,000 service dependents. The overall program handled by our staff, including hospitalization payments, exceeded $1.25 million.

Mr. Lau's report included remarks showing we attained our greatest Blue Shield numerical growth in years . . . "156,910 . . . an increase of 12 per cent in one year! . . . 17,117 new participants in Blue Shield since 1956. Numerically this is one of the best records since the early years of the plan, and was gained — as Dr. Toland indicated in his annual report — against the sternest competition in our history."

Income-wise, Blue Shield showed a 42 per cent increase, representing the largest dollar volume in subscriber dues in the plan's history. Correspondingly a 42 per cent increase in payments to participating physicians was noted . . . "84 per cent . . . the highest percentage of participating physicians in our short history . . . received Blue Shield payments totaling $1,375,107.57.

Total income for the plan was $1,951,526.59. Of this, 78.1 per cent was used as payments to physicians; 12.5 per cent was used for operating expenses within the plan, and 9.4 per cent was put into reserve for future payments to physicians.

Dr. Toland summed it all up graphically and well in his report with his concluding remarks: "My experiences the past year have clearly demonstrated to me that there is great strength and purpose in our profession and in this thriving organization we have created for its greater service to our patients. For the opportunity of serving as president this year I am profoundly grateful. It has been both a signal honor and a valued privilege."



In a recent 140-patient study[1] DIMETANE gave "more relief or was superior to other antihistamines," in 63, or 45% of a group manifesting a variety of allergic conditions. Gave good to excellent results in 87%. Was well tolerated in 92%. Only 11 patients (8%) experienced any side reactions and 5 of these could not tolerate any antihistamines.

Robins

1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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BLUE SHIELD — SERVANT OF MEDICINE

THE WOODS are full of people who would like to make over (or maybe, take over) the practice of medicine. Here and there, captains of industry or of labor are buying and building hospitals, setting up "closed panels" of doctors working on salary, and offering their group services through various local prepayment schemes. Trade unions in some of our large cities are organizing health and medical centers, to provide an ever widening scope of prepaid medical services through physicians employed on a salary basis.

All these plans represent, in a greater or lesser degree, a departure from medicine's traditional principles of free choice of physician for the patient, and fee-for-service payment for the physician.

Blue Shield, on the other hand, does not attempt, even inadvertently, to change the patterns of American medicine. Blue Shield leaves the patient completely free to choose his own physician. It pays his doctor on a fee for service basis. It is adaptable both to the traditional mode of solo practice and to the modes of group practice. It doesn't try to put medicine into a new mold — but it serves medicine under whatever pattern the doctor chooses to evolve.

Perhaps most important of all, Blue Shield — alone among all types of prepayment plans — bases its experience on the needs of the entire community. Thus it seeks to help our profession meet its over-all responsibility to all the people — not just to those groups that are most powerfully organized or most favored as insurance "risks."

Blue Shield is the servant — not the master — of medicine.

NOW

Contrast what is happening in Canada relative to their hospitals and a federal health insurance program.

Canada is adopting a compulsory federal health insurance program.

By Jan. 1, 1959, nine out of 10 Canadian provinces will be included in a compulsory federal health insurance program, it was reported by representatives of the Canadian Blue Cross Plans at the recent national conference of plans. The 10th province, Quebec, is expected to have a program operating by 1960.

Initially, the national health insurance program will cover hospital services only. However, the Canadian representatives unanimously agreed that *the next step will be a compulsory governmental program for medical care, with the doctors joining hospitals under the government program.* Two provinces, Saskatchewan and Alberta, are already moving to bring the medical profession into the compulsory federal plan.

Participation in the program is compulsory for all persons employed by firms with 15 or more employes; voluntary for employes of smaller firms. Eighty-four per cent of Canada's population will be immediately covered. Financing is one-third by the national government, one-third by the provincial government and one-third by the employe or employer.

The program provides full coverage for ward care. Hospital rates are to be established by the government.

The law prohibits Blue Cross and private insurance carriers from providing basic (ward) coverage. In some provinces, Blue Cross will be permitted to cover the room differential between ward and semi-private.

Beginning next year, the United States will be the only country in the world without some form of nationalized compulsory health insurance. We must continue to demonstrate here that the voluntary approach to health care can and does meet the needs of the people.

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RESOLUTIONS PASSED BY THE ARIZONA PHARMACEUTICAL ASSOCIATION — 1958

RESOLUTION 21

WHEREAS the development and growth of new products for the relief of many diseases affecting mankind has presented many problems of adequate distribution, has been particularly evidenced by the recently developed Salk and Asian influenza vaccines, and

WHEREAS a tremendous crash program is presently being experienced in developing a potential cure for cancer, arteriosclerosis, and the other potential decimating diseases, and

WHEREAS the only recognized and practical distribution system for prescription medications is by the order of a medical practitioner, through a licensed pharmacy

NOW THEREFORE be it resolved that the Arizona Pharmaceutical Association here in convention assembled urge all governmental agencies and officals to recognize the desirability of utilizing these established private channels of distribution for prescription medication when releasing any new preparation for public use.

RESOLUTION 23-A

BE IT RESOLVED that the Arizona Pharmaceutical Association liaison committee, as a result of its meeting with the committee of the Arizona Medical Association, Feb. 17, 1957:

That there be no restrictions in the matter of doctors referring patients to pharmacists, nor in pharmacists referring customers or patients to doctors, but recommend that the two associations be asked to adopt a policy of free choice of physician and pharmacist by the patient.

And further, that where there is a direct line from office to pharmacy in existence, that the physician determine from the patient that such pharmacy is preferred over any other which would have been freely selected by the patient.

Whereas the pharmacist has been continually placed in an embarrassing position by the doctor's nurse or office receptionist telephoning the doctor's request for an oral narcotic prescription or a refill of an oral narcotic prescription, that both the Arizona Pharmaceutical Association and the Arizona Medical Association point out to their members that this is a breach of the Federal Narcotic Act, and the oral narcotic privilege, and that only the doctor can transmit such an order.

RESOLUTION 23-B

Whereas it is essential to the safety of the patient that all refills for "legend drugs" or other potentially dangerous drugs be approved by the physician, and recognizing the fact that this is a legal requirement in addition to the more important consideration of the public health,

BE IT RESOLVED that the Arizona Pharmaceutical Association, here in convention assembled, urge all pharmacies to adopt the following type of refill instruction box on prescription blanks:

Do not Refill
Refill times
Refill until date
and,

BE IT FURTHER RESOLVED that this resolution be forwarded to the Arizona Medical Association with the recommendation it be adopted by their association.

RESOLUTION 24

BE IT RESOLVED by the Arizona Pharmaceutical Association, here in convention assembled, that all cases of proved counter prescribing be reported by name to the liaison committee, and

That instances of prescriptions of certain doctors channeled through one pharmacy be reported by name to the liaison committee, and be it further resolved:

That the matter of trunk lines running directly from the doctor's office to a certain pharmacy be reported to the liaison committee, and

That the problem of detail men quoting prices to doctors which are lower than charged by drug stores, thus causing difficulty and misunderstanding, shall likewise be referred to the liaison committee.

AN INTRODUCTION TO CHEST SURGERY
by Geoffrey Flavell. 354 pages. Illustrated. (1957) Oxford. $7.50.

The author achieves his objectives, the presentation of chest surgery in detail but in a form easy to read, with excellent cardiographs and illustrations of pathology and techniques. For the sake of simplicity the text is didactic and bibliographies are omitted. The subject is discussed in three parts: (1) Surgery of the lungs, pleura and thoracic confines; (2) surgery of the esophagus; and (3) surgery of the heart and great vessels.

Stacey's Medical Books, San Francisco, California.

AMA INDORSES HILL-BURTON CONTINUATION, URGES LOAN GUARANTEES

THE AMERICAN Medical Association supported legislation for a continuation of the Hill-Burton hospital construction program and at the same time recommended federal guarantee of hospital and nursing home loans under an arrangement similar to that used by the federal housing administration. The association's testimony was presented by Drs. Julian Price, a trustee, and Willard Wright, chairman of the AMA committee on medical and related facilities, at a hearing before the health subcommittee of the house interstate committee.

Dr. Price first explained that the AMA was supporting the extension, and making some suggestions for changes in the program, as the result of a survey conducted by the association in 14 states and in which more than 200 people involved in hospital problems were interviewed. Dr. Wright said the program should be continued "for as long as needed."

AMA RECOMMENDS MORTGAGE GUARANTEE FOR NURSING HOMES, HOSPITALS

TESTIFYING for the American Medical Association, Dr. R. B. Robins has recommended to the senate that the federal government authorize mortgage guarantees for proprietary as well as public and non-profit nursing homes. The same recommendation was made previously to a house committee. Dr. Robins, of Camden, Ark., is a former vice president of the AMA and a former president of the American Academy of General Practice.

Dr. Robins, appearing before a senate banking and currency subcommittee described the AMA's century-long efforts to solve some of the problems of the aged, and noted that the association now has three committees actively at work in this field. This interest of medicine, he said, "continues right down the line to the family physician who is on the scene when the various medical crises occur in the lives of older people." He explained that most of the aged population need a certain amount of skilled nursing care and medical care, but not necessarily expensive hospital care. They could receive "the maximum professional attention their conditions call for" in a less expensive facility — a properly constructed and operated nursing home, where professional medical and nursing care would be on hand or readily available.

Proprietary nursing homes currently care for 71 per cent of nursing home patients, but they have trouble financing construction and equipment because they are "one-purpose" structures that are not appealing as an ordinary commercial risk, Dr. Robins said.

The role of the joint council to improve the health care of the aged, in which the AMA is co-operating with the American Hospital Association, the American Dental Association and the American Nursing Home Association was outlined by the witness. He said its long-range goal is better health care for all the aged, and its most immediate concern "is working out answers to meet the financial and social problems that accompany chronic illness."

Specifically, he stated that the American Medical Association, through its board of trustees, "has approved and will support a government-insured loan program of the FHA type for non-governmental hospitals and nursing homes, whether their ownership is of a non-profit or proprietary character."

CIVIL DEFENSE

AMA EMPHASIZES IMPORTANCE OF HEALTH IN FUTURE CIVIL DEFENSE SETUP

THE AMERICAN Medical Association, in a letter to Chairman Holifield of a house government operations subcommittee, has urged that top level status be given health activities in any new organization dealing with civil defense. The subcommittee has before it a presidential reorganization plan that would merge federal civil defense administration and the office of defense mobilization.

General Manager Blasingame told the subcommittee the AMA believes the federal civil defense program should be strengthened, but

that "the method of accomplishing this is a matter for determination by the congress with the advice and assistance of the President and the state governments. . ."

On the contemplated merger, he declared: "The association believes that the health and medical functions of the FCDA and the ODM must be maintained at top level in the organization of the proposed office of defense and civilian mobilization for the good of our country and our people should our nation ever again be confronted with another national emergency."

The new organization would operate out of the President's office, and he would have power to eliminate or reassign its responsibilities in any way he saw fit. One result probably would be transfer of major health and medical planning functions of both FCDA and ODM to the U. S. Public Health Service. The reorganization was to become effective July 1, unless prior to that date either house or senate disapproved it.

SURVEY OF MEDICAL SUPPLIES BEGUN

AT THE request of the office of defense mobilization, the public health service is making a survey of 700 wholesale drug houses, surgical supply firms, and chain drug store warehouses to determine the current supply of medical items essential for survival after nuclear attack. PHS also is conducting a survey on a sample basis to establish the resources of retail drug stores. With co-operation of American Hospital Association, PHS has completed a survey of essential medical items in hospitals. ODM is seeking to determine the availability of essential medical items to the domestic economy in the event of national emergency.

ADMINISTRATION TO BUILD 'LIMITED NUMBER' OF SHELTERS

THE EISENHOWER administration, announcing a new policy on shelters for protection against nuclear fall-out, informed the Holifield subcommittee of the committee on government operations that it will construct a "limited number" of prototype shelters, which will also have practical uses. Other steps in the administration's program include:

1. Substantially expand the present civil defense education and information work "to bring to every American all of the facts as to the possible effects of nuclear attack, and inform him of steps he and his state and local governments can take to minimize such effects,"

2. Survey existing structures — such as buildings, mines subways, etc. — to assemble definite information on potential protection.

3. Accelerate research in order to show how shelters may be incorporated in existing as well as new buildings.

4. Incorporate fall-out shelters in appropriate new federal buildings designed for civilian use.

The subcommittee was told that, "There will be no massive federally-financed shelter construction program." The limited number of U.S.-built shelters will have practical peace-time uses, such as underground parking garages, subways, additions to schools and hospitals and industrial plants.

ARTHUR FLEMMING TO TAKE OVER AS HEW SECRETARY THIS SUMMER

ARTHUR S. Flemming, 53-year-old educator and expert in government management, will become the third secretary of health, education, and welfare some time late in July or early August. He succeeds Marion B. Folsom, who is resigning for reasons of health and who has been in the post since August 1955.

Mr. Flemming has alternated between educational posts, first at American University and then Ohio Wesleyan University, and major posts in Washington under three presidents. He was named by President Roosevelt as a Republican member of the Civil Service Commission where he served for nine years. He left in 1948 to become the first lay president of Ohio Wesleyan University. Mr. Flemming was called back to Washington by President Truman to serve during the Korean war in the office of defense

mobilization.

President Eisenhower, before his inauguration, named Mr. Flemming, Milton Eisenhower and Nelson Rockefeller to a committee on government reorganization and personnel. This group still continues in being. In 1953, Mr. Flemming was named head of ODM where he remained until 1957, before returning to Ohio Wesleyan.

Associates of Mr. Flemming describe him as a team worker who shuns controversy but is ready to defend administration policies. He is considered a man of large abilities and an outstanding student of government. While in the Civil Service Commission, he plugged hard for raising the top salary of executives. One associate who has observed him in action says he is a most persuasive witness. He is generally described by friends as a progressive Republican.

President Eisenhower cited Mr. Folsom's contribution to the "strengthening of our social security system, to the greater effectiveness of our public health activities and to the better meeting of the educational requirements of our age. . ."

FORAND BILL HEARINGS

HEARINGS on the Forand bill and other proposed amendments to the social security program were held June 16-17 before the house ways and means committee. Announcement that congress would reopen the Social Security Act came May 29, climaxing weeks of uncertainty when it was not known whether the hearings would be held this session, or when they would start, if scheduled. The Forand bill, by far the most important medical issue in the hearings, would amend the Social Security Act to provide for surgery and 120 days of hospital and nursing home care annually for social security recipients, to be financed by increased OASDI payroll taxes.

Major changes proposed in the Forand bill are:

I. Give the 13 million persons now eligible for OASI benefits (and others to follow them) free surgery and hospital-nursing home care for 120 days a year.

II. Raise the OASI payroll taxes by one-half per cent for employer and employe, and three-quarters of 1 per cent for self-employed and raise the wage base to be taxed from the first $4,200 of income to $6,000.

III. Increase dollar benefits for all beneficiaries.

The secretary of HEW would (through negotiation) set charges for physicians, hospitals and nursing homes, and only those agreeing to participate would be eligible to care for patients. Eventually Forand benefits could be extended to younger age groups, resulting in total national compulsory health insurance. This program would spell the end of voluntary health insurance, which has made such remarkable progress. The bill was drafted by the AFL-CIO without any assistance from the medical or allied professions. The AMA now is busily engaged in a positive program of action to improve the health care of the aged.

AMA URGES TOP MEDICAL POST BE RETAINED IN DEFENSE DEPARTMENT

IN THE best interests of the armed forces, the military medical services and the country," the post of assistant secretary of defense for health and medical affairs should be retained, the AMA has told congress. The association made its arguments in a letter from General Manager Blasingame to Chairman Vinson of the house armed services committee, which is considering reorganization plans for the department that could result in down-grading the post of special assistant to the secretary.

Dr. Blassingame's letter noted that the assistant secretary position was created in 1953, after four years' previous experience with a special assistant handling the work. He said that under the assistant secretary system "an enviable record of increased efficiency and economy has been established."

He pointed out that the services have the lowest case fatality rates ever, and have maintained the highest effective rate, even though U. S. troops were serving in disease-ridden areas and under hazardous conditions. The assistant secretaries, Dr. Blasingame said, have made possible joint utilization of facilities, educational programs, logistics, intelligence, and research and scientific development. Experience has shown, he declared, that the respect and au-

thority vested in an assistant secretary "have made it possible for him to formulate policy and direct programs, while at the same time commanding the respect of his opposite numbers in the highest circles of our own government, in foreign governments and in the professional and scientific as well as lay national and international groups."

'FREE CHOICE OF PHYSICIANS' IS ISSUE IN LONGSHOREMEN'S HEARING

THE QUESTION of free choice of physician is a major issue before a subcommittee of the house education and labor committee at hearings on proposals to change the longshoremen's and harbor workers' compensation act. Under the present law, the injured workman is treated by employer-selected physicians, except in (a) an emergency, (b) where the employer refuses to provide medical care or delays in furnishing it, or (c) where the employer grants freedom of choice of physician.

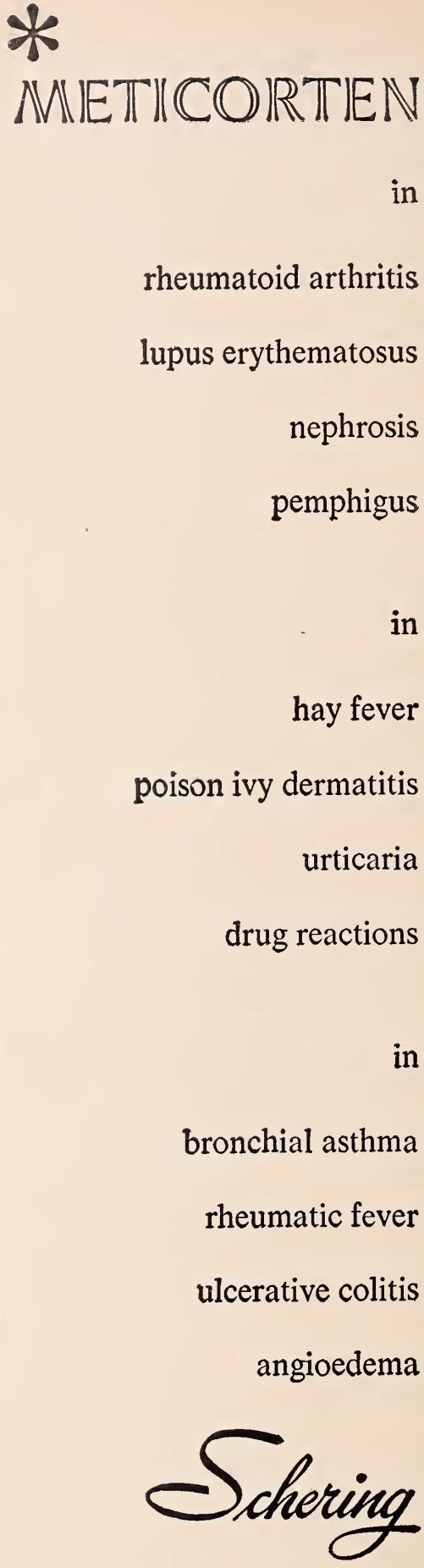
One of the proposed amendments in the bill under consideration (HR 7303) would give the injured employe the right to select his own physician, unhampered by any restrictions of the law.

Witnesses before the subcommittee have included representatives of the department of labor, the International Longshoremen's Association (principally the Atlantic seaboard and Gulf coast), the AFL-CIO, and the International Longshoremen's and Warehousemen's Union (West coast, Hawaii, and British Columbia). Spokesmen for the two longshoremen's unions were unanimous in support of the "freedom of choice" amendment. Labor department and AFL-CIO representatives argued mainly for enactment of a more effective safety code for the industry, provided for in other bills.

CLINICAL HEART DISEASE
by Samuel A. Levine, M.D. 5th ed. 673 pages. Illustrated. (1958) Saunders. $9.50.

The revision remains concise and is again entirely up to date. The latest advances in clinical electrocardiography and in congenital heart disease, with surgical corrections, are reviewed, respectively, by Drs. Harold Levine and Alexander Nadas, of Harvard. This volume should retain its popularity among clinical cardiologists.

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POLIO VACCINE MAKERS CHARGED WITH ANTITRUST VIOLATION

THE U. S. government has indicted five manufacturers of Salk polio vaccine on charges of violating the Sherman Antitrust Act, and is considering bringing civil damage actions against the firms. The indictments were returned by a federal grand jury at Trenton, N. J. Last summer, a house government operations subcommittee investigated the vaccine sales, and the Federal Trade Commission has an investigation under way into trade practices of some antibiotic producers.

Named in the indictments are Eli Lilly and Co., Indianapolis; Allied Laboratories, Inc., Kansas City, Mo.; American Home Products Corp., New York City; Merck & Co., Inc., Rahway, N. J.; and Parke, Davis & Co., Detroit. The indictment claims that the companies, sole producers of the vaccine in the United States during the period covered, conspired to fix prices and eliminate competition on sales to federal, state and local government bodies.

The industry shipped more than 205 million cc of the vaccine, with a value of about $125 million, between April 1955, when it was first pronounced successful, and last Dec. 31. Of this, approximately 103.5 million units were sold to public authorities. Most of the public sales were financed by a $53.6 million grant from the U. S. to states for purchase of vaccine to be used in public programs and to help meet administrative expenses.

After the indictments were announced, spokesmen for the companies either flatly denied the charges or said they would not comment until they had studied them.

LEGION ASSAILS BUDGET BUREAU FOR REDUCING NUMBER OF VA BEDS

TESTIFYING before a senate appropriations subcommittee, a spokesman for the American Legion has attacked the bureau of the budget for "going far beyond the intentions of those who established it" in requiring veterans' administration to close some of its beds. John J. Corcoran, director of the Legion's national rehabilitation commission, said the bureau "has contravened the will of congress by its dilatory tactics in delaying or denying the allocation of funds to the veterans' administration under authorized and approved appropriations.

Specifically Mr. Corcoran objected to the bureau's contention that "40,000 hospital beds is the total number necessary to care for the service-disabled war veterans, and that it is all right to remove from operation beds in excess of that number in VA hospitals." In carrying out this policy, Mr. Corcoran declared the bureau will not permit VA to operate 4,974 beds since they are designated as not required to meet current operating plans. He asked that the senate concur in house action to increase VA funds by $10.5 million to permit VA to operate at a daily patient load of 140,800.

SENATE ASKED TO APPROVE FUNDS FOR STAPHYLOCOCCUS RESEARCH

THE AMERICAN Hospital Association committee on infection within hospitals wants a first-year appropriation of $1.5 million for research on staphylococcus infections. AHA suggests a $1 million grant for the National Institute of Allergy and Infectious Diseases plus $500,000 to the Communicable Disease Center at Atlanta for field studies, control activities and aid to state laboratories. The request was made of the senate appropriations subcommittee, which is winding up hearings on the fiscal 1959 budget for the department of health, education, and welfare. The bill has passed the house.

Dr. Frederick H. Wentworth of the Ohio State Department of Health, and member of the AHA committee, testified that the problem of staphylococcus infections within hospitals was getting worse and that hospitals and states did not have the resources to cope with it. He warned: "If this goes on uncontrolled, there will be decreased public confidence in hospitals." Dr. August H. Groeschel, associate director of the New York Hospital, said a major source of trouble were antibiotic-resistant strains. Such staphylococci are "largely a by-product of the widespread use of antibiotics which eliminate the susceptible strains of staphylococci and leave uncontrolled the resistant strain."

In another area, Dr. H. Houston Merritt, director of the New York Neurological Institute and member of the advisory council for the National Institute of Neurological Diseases and Blindness, called for a comprehensive evaluation plan of all new and potent drugs which act on the central nervous system. "It is absolutely essential that human clinical testing be carried out to determine the potential areas of usefulness of each new drug," Dr. Merritt said.

PUBLIC LAW 635 AT WORK

Clarence G. Salisbury, M.D.*

THE OCCASIONAL startling report of mentally retarded persons being maltreated has not, in the past, produced sufficient incentive for a community to make more suitable provisions locally for these victims of circumstances. A moderately severe mental retardate who has found a desirable place for himself in an environment ill-prepared to make a place for him is the exception rather than the rule.

Of even greater concern today are the ever increasing number of children who must attend regular public schools whether they are mentally capable of achieving success as students or not. These are the ones annually receiving social promotions. These are the ones who must compete unsuccessfully with their fellow students. These are the ones who may become frustrated, hostile, and eventually delinquent.

A group of parents with much intelligent concern, in 1955 prepared a request to congress asking for funds to create adequate diagnostic facilities in state and local health services to find the child who is mentally defective. Public Law 635 resulted. This law became effective June 29, 1956, and was designed to stimulate education in regard to retardation; to assist local areas in establishing adequate diagnostic services to determine retardation; and to promote the establishment of facilities designed to aid the retardate in the areas of social and occupational development. Congress appropriated $1 million for this program, and gave the responsibility for administering it to the Children's Bureau of the Department of Health, Education and Welfare.

The parents who lobbied for Public Law 635 had a basic premise in mind. The retarded child is to remain in the home if at all possible, and find his place in the community as a non-dependent agent. He is to grow and develop there as any other child with special consideration given to his individual capabilities and his limitations.

Comparatively few state health departments in the nation were prepared in June 1956, to accept the responsibility that Public Law 635 created. For this reason, much of the $1 million went begging for about six months. However, this wasn't the case for long. Arizona's State Department of Health was convinced in 1956 that this project could be valuable to its citizens. In January 1957, a diagnostic center was established by the health department at 1633A West Jefferson St., Phoenix. Other states became willing to try the new project and soon the $1 million became oversubscribed. Children's bureau had been so confident that this would be the case, that its administrators had set aside additional funds from its regular allotment to supplement the project. These funds, too, were soon encumbered by states desiring diagnostic services.

In 1957-1958 congress again appropriated $1 million to continue the mental retardation demonstration services. The children's bureau added an additional $1 million to encourage development of public health diagnostic services for mental retardation. All of these funds are now allocated and there are requests on file in the children's bureau for still more funds to establish diagnostic centers under this plan.

It must be understood that these health services are demonstrations. It is expected that states and local communities will, within a few years, be assuming financial and professional responsibility for such services. Since the Arizona State Department of Health established the first mental retardation center in Phoenix, another center has been created in Tucson for the same purpose. The latter center is, at present, completely financed through local resources. This community is to be commended for the leadership of its professional organizations which have co-operated to create a team of able workers, capable of providing a major part of the diagnostic services for mental retardation, without cost to the state and federal governments.

There is now no doubt that the team of phy-

*Commissioner of Public Health, State of Arizona.

sician, medical social worker, psychologist and consultant personnel, with the assistance of resource individuals and agencies, is essential to the best possible evaluation of the retarded child's potentialities. The need for the continual co-operation of family physician, public health workers, social services, and departments of education with the family of the retarded individual is to be anticipated. The intent must not be disproportionate concern for the mentally retarded person. It is assurance that he has his proportionate consideration.

AMERICAN HEART ASSOCIATION CO-SPONSORS HEART BULLETIN

THE HEART BULLETIN, a bi-monthly professional journal on heart disease directed primarily to family physicians, will be sponsored by the American Heart Association in co-operation with the National Heart Institute of the U. S. Public Health Service and the American Academy of General Practice. The announcement, made by Dr. Robert W. Wilkins, president of the Heart Association, said the joint sponsorship took effect with the May-June 1958 issue.

The Heart Bulletin has been issued as a public service since March 1952 by the Medical Arts Publishing Foundation, Houston, Texas, a non-profit service organization affiliated with the University of Texas. The foundation will continue to publish and distribute the journal. The Heart Bulletin is made available to many physicians on a state-wide basis through subscriptions purchased by affiliated heart associations, state medical societies and state health departments.

Named by the heart association to serve as associate medical editors of the publication in their fields of specialization are: Dr. Sidney Blumenthal, New York City, pediatrics; Dr. Harriet Dustan, Cleveland, research; Dr. Edward D. Freis, Washington, D. C., hypertension; Dr. John W. Kirklin, Rochester, Minn., cardiovascular surgery; Dr. Arthur J. Merrill, Atlanta, peripheral circulation; Dr. Gerald H. Whipple, Boston, electrocardiography; and Dr. James V. Warren, Durham, N. C., clinical cardiology.

SURGERY OF THE BILIARY TRACT, PANCREAS AND SPLEEN

by Charles B. Puestow, M.D. 2nd ed. 381 pages. Illustrated. (1957) Year Book. $9.75.

The second edition of this handbook for surgical residents adds new discussions of cholangiography, new procedures in surgery of the pancreas, and indications and contraindications for splenectomy.

Stacey's Medical Books, San Francisco, California.

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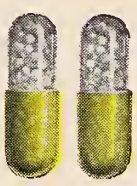
Further Studies of the Administering Anuran Anterior Pituitaries to Immature Female Mice. American Journal of Anatomy, 1941, 69:229.

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1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.
2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

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ARIZONA STATE COLLEGE AT TEMPE

LIST OF SUBSCRIPTIONS IN MEDICAL FIELDS

A List of the Matthews Library Subscriptions of Periodicals and Journals (not including annuals, year books, and other serials) In The Medical Literature And Related Fields:

1. AIBS Bulletin (American Institute of Biological Sciences) V. 1 to date.
2. Acta Genetica et Statistica Medica. 1958 to date.
3. Acta Geneticae Medicae et Gemollogigial. V. 6 to date.
4. American Annals of the Deaf. V. 81-86, 92, 98 to date.
5. American Anthropologist. V. 32-35, 37-41, 50 to date.
6. American Journal of Anatomy. V. 82 to date.
7. American Journal of Clinical Nutrition. V. 1 to date.
8. American Journal of Human Genetics. V. 1 to date.
9. American Journal of Hygiene. V. 41 to date.
10. American Journal of Medical Technology. V. 18 to date.
11. American Journal of Mental Deficiency. V. 56, 59 to date (No. 1, 2 of V. 59 lacking).
12. American Journal of Nursing. V. 20, 21, 41-46, 48 to date (pt. 1-3, 9, 12 of V. 20 lacking, pt. 7 of V. 21 lacking).
13. American Journal of Obstetrics and Gynecology. V. 12-21, 23, 25-31, 41, 63 to date.
14. American Journal of Orthopsychiatry. V. 20 to date.
15. American Journal of Physical Anthropology. V. 1 to date (new series).
16. American Journal of Physical Medicine. V. 26-27, 31 to date.
17. American Journal of Physiology. V. 143 to date.
18. American Journal of Public Health. V. 20 to date.
19. American Journal of Tropical Medicine and Hygiene. V. 1 to date.
20. Anatomical Record. V. 115 to date.
21. Annals of Allergy. V. 10 to date.
22. Annals of Human Genetics. V. 22 to date.
23. Annals of Physical Medicine. V. 14 to date.
24. Annals of the New York Academy of Sciences. Some early annals predominantly V. 48 to date.

25. Anthropologie. V. 1, 15 to date.
26. Anthropos. V. 1 to date.
27. Applied Microbiology. V. 1 to date.
28. Archives de l' Institute Pasteur d' Algerie. V. 32 to date.
29. Archives of Biochemistry and Biophysics. V. 35 to date.
30. (AMA) Archives of Industrial Health, formerly (Archives of Industrial Hygiene and Occupational Medicine). V. 2 to date (pt. 1-4 of V. 2 lacking).
31. Archives of Physical Medicine and Rehabilitation. V. 34 to date.
32. Arizona Medicine. V. 1 to date.
33. Australian Journal of Experimental Biology and Medical Science. V. 31 to date.
34. Bacteriological Reviews. V. 1,4-7, 9 to date.
35. Biochemical Journal. V. 43-44, 48 to date.
36. Biochimica et Biophysica Acta. V. 4, 7-8, 23 to date.
37. Biological Abstracts. V. 1 to date.
38. Biological Bulletin. V. 94-99, 101 to date.
39. Biometricka. V. 1 to date.
40. Biometrics. V. 10 to date.
41. Biophysics V. 2 to date.
42. Blood: Journal of Hematology. V. 9 to date
43. British Journal of Nutrition. V. 7 to date.
44. Bulletin of Mathematical Biophysics. 1958 to date.
45. Bulletin of the New York Academy of Medicine. V. 29 to date.
46. Bulletin on Current Literature (National Society for Crippled Children). V. 12 to date.
47. Bulletin on Narcotics. V. 5 to date.
48. Canadian Journal of Biochemistry and Physiology. V. 32 to date.
49. Canadian Journal of Medical Sciences. V. 31 only.
50. Canadian Journal of Zoology. V. 31 to date.
51. Cancer. V. 1 to date.
52. Cancer Research. 1958 to date.
53. La Cellule. 1956 to date.
54. Cerebral Palsy Review. V. 5 to date.
55. Child Development. V. 4 to date.
56. Child Development Abstracts. V. 8-10, 12 to date.
57. Clinica Chimica Acta. 1957 to date.
58. Copeia. 1951, 1952, 1954 to date (Index 1913-1954, V. 1 author, V. 2 subject).
59. Crippled Child Magazine. V. 24 to date.
60. Endocrinology. V. 5, 46 to date.
61. Eugenics Quarterly. V. 1 to date.
62. Eugenics Review. V. 45 to date.
63. Evolution. V. 1 to date.
64. Experimental Cell Research. V. 1-2, 4 to date.
65. Experimental Parasitology. V. 1 to date.
66. Federation Proceedings. (Federation of American Society for Experimental Biology). V. 12 to date.
67. Food Research. V. 1, 3 to date.
68. Genetic Psychology Monographs. V. 1, No. 1 to date.
69. Genetics. V. 30 to date.
70. Geratrics. 1958 to date.
71. Gerontologia. 1957 to date.
72. Herpetologica. V. 1, 4 to date (Index V. 1-11, 1936-1955).
73. Homo. 1957 to date.
74. Hospital Administration. 1957 to date.
75. Hospital Managements. 1958 to date.
76. Human Biology. V. 17 to date.
77. Human Organization. V. 1 to date.
78. International Abstracts of Biological Sciences. 1958 to date.
79. International Bulletin of Bacteriological Nomenclature and Taxonomy. V. 1 to date.
80. International Journal of Air Pollution. 1958 to date.
81. Isis. V. 41 to date.
82. Japanese Journal of Ethnology. 1957 to date.
83. Journal of Allergy. V. 21 to date (pt. 1-4 of V. 21 lacking).
84. Journal of Applied Physiology. V. 1 to date.
85. Journal of Bacteriology. V. 5, 7-9, 34-47, 49 to date (V. 5, 8, 39, 47 incomplete).
86. Journal of Biological Chemistry. V. 1-25, 157 to date (Index V. 126-150).
87. Journal of Cellular and Comparative Physiology. V. 33 to date.
88. Journal of Child Psychiatry. V. 1 to date.
89. Journal of Clinical Endocrinology and Metabolism. V. 10 to date.
90. Journal of Clinical Investigation. V. 24, 32 to date (pt. 1, 3-6 of V. 24 lacking).
91. Journal of Clinical Psychology. V. 1 to date.
92. Journal of Comparative Neurology. V. 98 to date.
93. Journal of Experimental Biology. V. 1 to date.
94. Journal of Experimental Zoology. V. 97-98, 100 to date (pt. 1-2 of V. 97 lacking, pt. 4 of V. 102 lacking, pt. 2 of V. 103 lacking.
95. Journal of Forensic Medicine. 1957 to date.

96. Journal of General Physiology. V. 13-20, 28 to date.

97. Journal of Genetic Psychology. V. 10 to date (pt. 1 of V. 70 lacking).

98. Journal of Genetics. V. 25-45, 50 to date (pt. 1, 4 of V. 45 lacking).

99. Journal de Genetique Humaine. 1957 to date.

100. Journal of Heredity. V. 8 to date (pt. 2 of V. 15 lacking, pt. 6 of V. 36 lacking).

101. Journal of Histochemistry and Cytochemistry. V. 1 to date.

102. Journal of Hygiene. V. 19-20, 47, 49 to date.

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104. Journal of Laboratory and Clinical Medicine. V. 17, 41 to date (No. 2-3, 5 of V. 17 lacking).

105. Journal of Mammalogy. V. 4, 6-19, 22-30, 32 to date.

106. Journal of Medical Education. V. 31 to date.

107. Journal of Microbiology. 1957 to date.

108. Journal of Milk and Food Technology. V. 14 to date.

109. Journal of Morphology. V. 86 to date.

110. Journal of Neurochemistry. 1958 to date.

111. Journal of Nutrition. V. 29 to date.

112. Journal of Parasitology. V. 30 to date.

113. Journal of Pathology and Bacteriology. V. 62 to date.

114. Journal of Physiology. V. 108 to date (Index V. 101-115, 116-134).

115. Journal of Speech and Hearing Disorders. V. 7 to date (pt. 1-2, 4 of V. 7 lacking).

116. Journal of the American Association of Industrial Nurses. 1958 to date.

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118. Journal of the American Pharmaceutical Association. V. 2-3, 8-10, 13, 15, 18, 29, 42 to date (various pts. lacking).

119. Journal of the History of Medicine and Allied Sciences. V. 1 to date.

120. Journal of Psychosomatic Research. 1958 to date.

121. Journal of Tropical Medicine and Hygiene. V. 28, 53 to date (No. 2 of V. 28 lacking).

122. Man. V. 23147, 53 to date.

123. Medical History. 1957 to date.

124. Medical Technicians Bulletin. V. 1 to date

125. Metabolism: Clinical and Experimental. V. 2 to date.

126. Modern Nutrition. V. 3 to date (pt. 1-10 of V. 3 lacking, pt. 11 of V. 6 lacking).

127. Nematologica. 1957 to date.

128. Nursing Outlook. V. 1 to date.

129. Nursing Research. V. 1 to date.

130. Nursing World. 1958 to date.

131. Nutrition Reviews. V. 1 to date.

132. Perspectives in Biology and Medicine. Oct. 1957 to date.

133. Physical Therapy Review. V. 28 to date (Index V. 20-34, 1940-54).

134. Physics in Medicine and Biology. July 1956 to date.

135. Physiological Reviews. V. 25 to date.

136. Physiological Zoology. V. 22 to date.

137. Problems of Oncology. 1957 to date.

138. Problems of Virology. 1957 to date.

139. Proceedings of the Nutrition Society. V. 12 to date.

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141. Psychiatry. V. 15 to date.

142. Psychometrika. V. 13, 15 to date (pt. 1, 3-4 of V. 13 lacking, pt. 1-2, 4 of V. 16 lacking).

143. Public Health Nursing. V. 39 to date.

144. Quarterly Bulletin of Northwestern University Medical School. V. 27 to date.

145. Quarterly Journal of Microscopical Science. New series V. 91 to date.

146. Quarterly Review of Biology. V. 20 to date.

147. Radiation Research. V. 1 to date.

148. Rehabilitation Literature. (National Society for Crippled Children and Aduts.) V. 12 to date.

149. Sechenov Physiological Journal of the U.S.S.R. 1957 to date.

150. Sight-Saving Review. V. 19 to date.

151. Southwestern Journal of Anthropology. V. 1 to date.

152. Systematic Zoology. V. 1 to date.

153. Today's Health. V. 4 to date.

154. Transactions of the American Microscopical Society. V. 69 to date.

155. Tropical Disease Bulletin. V. 47 to date.

156. Virology. V. 1 to date.

157. Yale Journal of Biology and Medicine. V. 24 to date (No. 3 of V. 25 lacking).

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House Organs in the Medical Literature Received by Gift:

158. American Journal of Pharmaceutical Education. V. 18 to date.

159. Archives of Internal Medicine. V. 27-28, 37-41, 47-48, 81, 83-97 (all volumes incomplete).

160. Arizona Dental Journal. V. 1 to date (pt. 1 of V. 1 lacking, pt. 3 of V. 2 lacking).

161. Arizona Pharmacist. V. 29 to date (pt. 1-7, 10-11 of V. 29 lacking).

162. Arizona Public Health News. 1908, 1913 to date (various Nos. lacking in early volumes).

163. Baylor Dental Journal. V. 1 to date.

164. Blue Print for Health. December 1953 to date.

165. Borden's Review of Nutrition Research. V. 12 to date (No. 1-8 of V. 12 lacking; No. 2 of V. 16 lacking).

166. Bulletin of the National Tuberculosis Ass'n. V. 34 to date.

167. CDC Bulletin (U.S.-Communicable Disease Center). V. 9 to date.

168. Cancer News. V. 2 to date (pt. 2-3 of V. 9 lacking, pt. 4 of V. 10 lacking).

169. Ciba Clinical Symposia. V. 3 to date.

170. Cross-Bar Shield. April 1956 to date.

171. Current List of Medical Literature. V. 9 to date.

172. Dental Health Bulletin. V. 1 to date.

173. Health: An Osteopathic Magazine. V. 1 to date.

174. Health Activities Bulletin. Vo. 1 to date.

175. Heart Health News. 1957 to date.

176. Journal of the American Osteopathic Ass'n. V. 46 to date.

177. Journal of the National Cancer Institute. V. 4 to date (No. 1-3 of V. 4 lacking, No. 3 of V. 5 lacking, No. 2 of V. 7 lacking).

178. Journal of Venereal Disease Information. V. 25 to date (pt. 1-2 of V. 25 lacking. Index V. 1-16 1940-1956.

179. Medical Technicians' Bulletin. V. 1 to date.

180. Morbidity and Mortality Weekly Report. V. 3 to date.

181. National Negro Health News. V. 14 to date.

182. Public Health Engineering Abstracts. V. 24 to date (pt. 1-2, 12 of V. 24 lacking).

183. Public Health Reports. V. 29, pt. 1, V. 47, pt. 2, V. 50, pt. 2, V. 56 to date (various pts. lacking).

184. Research Today (Eli Lily) V. 8 to date.

185. Round-Up (Maricopa County Medical Society) V. 1 to date.

186. Safety Review. (U.S.-Navy Department) Office of Industrial Relations. V. 2 to date (pt. 1-11 of V. 2 lacking).

187. Scope. V. 1 to date.

188. Scopus. V. 5, 6, 9 to date (No. 2 of V. 6 lacking).

189. Social Hygiene News. V. 25 to date (volumes are incomplete).

190. Statistics of Navy Medicine. V. 9 to date (No. 1-6 of V. 9 lacking, No. 4 of V. 13 lacking, No. 5, 7-8 of V. 36 lacking, No. 4-6, 9-10 of V. 37 lacking, No. 4, 7-12 of V. 59 lacking, No. 12 of V. 62 lacking).

191. Therapeutics Notes. V. 36-37, 59, 62 to date.

192. United States Armed Forces Medical Journal. V. 1-6, 8 to date.

193. Venereal Disease Bulletin. V. 97 to date.

194. What's New (Abbot laboratories) V. 166-169, 171 to date.

The Following List of Bound Periodicals Are Those Which Have Been Received By Gift And Exchange From Various Sources, i.e. Doctors, Maricopa County Medical Society Library, Grunow Clinic, Veterans' Hospital Library, etc.

195. The American Journal of the Medical Sciences. V. 142, 161-166, 169, 171-179, 215-216.

196. Annals of Internal Medicine. V. 4, 9-12, 29, 32-44 (Index V. 1-40).

197. Annals of Western Medicine and Surgery. V. 1-4 (all volumes incomplete).

198. Bulletin de l' Institut Pasteur. V. 5-8.

199. California Medicine. V. 43, pt. 2.

200. Clinical Medicine and Surgery. V. 21-23, 38 (all volumes incomplete).

201. Current Medical Digest. V. 9, 23 (pt. 6-12 of V. 23 lacking).

202. Delaware State Medical Journal. V. 25 (No. 1, 4-12 lacking).

203. Deutsche Medizinische Wochenschrift. V. 36.

204. The Health Examiner. V. 5.

205. Hospital Corps Quarterly. V. 17-22 (No. 1 of V. 17 lacking).

206. The Illinois Medical Journal. V. 69, No. 1-6.

207. International Medical Digest. V. 10-15, 54-70 (No. 6 of V. 15, No. 2-5 of V. 58, No. 6 of V. 70 lacking).

208. Medical Bulletin of the Veterans' Administration. V. 4.
209. Medical Mentor. V. 1-2.
210. Medical Progress. 1952, 1953, 1955, 1956.
211. Medical Review of Reviews. V. 33 (incomplete).
212. Medical Science Abstracts and Reviews. V. 5-7 (all volumes incomplete).
213. Medecina. V. 18, pt. 6.
214. Minnesota Medicine. V. 24 (incomplete).
215. Modern Medicine. V. 3, 14, 21-24 (all volumes are incomplete).
216. Nebraska State Medical Journal. V. 37 (No. 1-7, 9- 2 lacking).
217. The New England Journal of Medicine. V. 245-250, pt. 1-2, V. 253-254 (volumes are incomplete).
218. New York State Journal of Medicine. V. 50, pt. 2-3, V. 61, pt. 1-2, V. 64, pt. 3.
219. Southwestern Medicine. V. 18-26, 32, 34-47 (volumes are incomplete except V. 233.
220. United States Naval Medical Bulletin. V. 42-49 (pt. 1-2 of V. 42 lacking, pt. 5 of V. 45 lacking).
221. R.N. V. 16-17 (incomplete volumes).
222. The Milbank Memorial Fund Quarterly. V. 10-11, 26 (volumes are incomplete).
223. Medical Economics. V. 30-33.
224. Modern Drugs. 1952-1955 (July, November 1955 lacking).
225. Antibiotics and Chemotherapy. V. 416 (volumes are incomplete).
226. American Journal of Roentgenalogy, Radium Therapy and Nuclear Medicine. V. 1, 6, 12, 30, 61, 65-70 (volumes are incomplete).
227. Journal of Electronic Medicine. V. 28 (incomplete).
228. Victor News. V. 2-5) pt. 5, 8-9 of V. 2 lacking, pt. 6 of V. 3 lacking, pt. 3 of V. 5 lacking).
229. American Journal of Clinical Pathology. V. 23 (Incomplete).
230. American Journal of Pathology. V. 11, 17, 29 (volumes are incomplete).
231. American Practitioner and Digest of Treatment. V. 1-3 (No. 8 of V. 1 lacking, No. 12 of V. 3 lacking).
232. GP. V. 1-13.
233. Bulletin of the Johns Hopkins Hospital. V. 93-95, 97 (volumes are incomplete).
234. Journal of Chronic Diseases. V. 1 (incomplete).
235. The Journal of Medical Practice. V. 1.
236. Journal of Technical Methods. V. 23.
237. Postgraduate Medicine. V. 2, 19-20 (volumes are incomplete).
238. Radiology. V. 61-63 (No. 1, 2 of V. 61 lacking, No. 2 of V. 62 lacking).
239. The American Heart Journal. V. 2-3, 6, 16-17, 20, 21, 24, 29, 35-44 (volumes are incomplete).
240. Circulation. V. 1-9 (volumes are incomplete).
241. Laryngoscope. V. 25-26, 34, 36, 61 (some volumes are incomplete).
242. The American Review of Tuberculosis. V. 4, 68-72.
243. Diseases of the Chest. V. 25-28.
244. Journal of Tuberculosis.
245. The American Journal of Digestive Diseases. V. 21-22 (incomplete) V. 1, new series, 1956 (No. 1 of V. 1 lacking).
246. Gastroenterology. V. 26-31 (volumes are incomplete).
247. The American Journal of Proctology. V. 5-6 (volumes are incomplete).
248. Proctology. V. 15, 17-18 (volumes are incomplete).
249. Archives of Dermatology and Syphilology. V. 47-52, 57-60.
250. The Journal of Urology. V. 16-17 (volumes are incomplete).
251. The Urologic and Cutaneous Review. V. 30-32 (volumes are incomplete).
252. Urological Survey. V. 2 (No. 2, 4 lacking)
253. Archives of Neurology and Psychiatry. V. 25-26, 31-39, 41-42, 49, 52, 54, 57-62 (volumes are incomplete).
254. Diseases of the Nervous System. V. 1-8 (volumes are incomplete).
255. Psychosomatic Medicine. V. 16 (No. 2, 4-5 lacking).
256. Menninger Clinic Bulletin. V. 1-11, 19 (No. 1, 3-6 of V. 10 lacking, No. 1-3, 5 of V. 11 lacking).
257. American Journal of Psychiatry. V. 91-94, 96.
258. Journal of Infectious Diseases. V. 40-53.
259. American Journal of Syphilis, Gonorrhea and Venereal Diseases. V. 21, 30-35.
260. American Journal of Cancer. V. 15, 22.
261. The American Journal of Surgery. V. 6-8, 86-92 (volumes are incomplete).
262. The American Surgeon. V. 17-19 (volumes are incomplete).
263. Annals of Surgery. V. 60, 67, 69-70, 72-76,

80, 82, 87, 95-100, 103 (volumes are incomplete).

264. Archives of Surgery. V. 12, 14, 39-40 (volumes are incomplete except V. 40).

265. International Abstracts of Surgery. V. 88-91.

266. International Surgical Digest. V. 3, 5, 11, 55-63 (No. 5 of V. 62 lacking, No. 5-6 of V. 63 lacking).

267. Surgery. V. 14-16 (No. 1-2 of V. 14 lacking, No. 2-6 of V. 16 lacking).

268. Bulletin of the American College of Surgeons. V. 35, 37-41.

269. Journal of the International College of Surgeons. V. 17-25 (No. 6 of V. 19 lacking).

270. The Journal of Thoracic Surgery. V. 18-19

271. AMA Archives of Opthalmology. V. 43, 45-54; new series V. 47-48 (volumes are incomplete).

272. Surgery, Gynecology and Obstetrics. V. 30, 34, pt. 1-2; V. 38, pt. 1-2; V. 39, pt. 2; V. 40, pt. 4, 6; V. 41, pt. 1, 3-5; V. 42, pt. 1, 3, 4, 6; V. 44, pt. 1-6; V. 45, pt. 1-6; V. 51, pt. 4; V. 52, pt. 3- 6; V. 54, pt. 2 No. 2; V. 55, pt. 6; V. 58, pt. 2 No. 2; V. 66, pt. 2 No.2; V. 68, pt. 1, 3-6; V. 70, pt. 1-6; V. 78, pt. 78, pt. 6; V. 79, pt. 1, 3-6; V. 80 pt. 1-6; V. 81, pt. 1-6; V. 82, pt. 1-2.

CANCER, Vol. 2: Pathology of Malignant Tumours
edited by Ronald W. Raven, F.R.C.S. 666 pages. Illustrated. (1958) Butterworths. $18. (To be published in six volumes plus index volume. Sold only by the set but billed at $18 per volume as published. Total set price $126.)

This provides a broad foundation on all phases of cancer, both research and clinical. All contributors are internationally distinguished in oncology: Bibliographies and indexing are extensive. This is the definitive work of the decade on cancer and will be as eagerly sought after as the Pack and Livingston work of 1936. We already have 1205 pages of text and brilliant illustrations with four more volumes to come during 1958.

Stacey's Medical Books, San Francisco, California.

THE PRACTICE OF INFECTIOUS DISEASES
by Louis Weinstein, M.D. 501 pages. (1958) Blakiston-McGraw-Hill. $8.50.

Eighth in a series of manuals for practitioners, and by a man with broad experience in infectious diseases, this book has the virtues and faults of manuals. It is clear, concise, and to the point, presented regionally as the normal approach of the clinician. At the same time it is dogmatic, limited and, in hitting the high points, necessarily spends much of its valuable space on known information. An honest book, with no false colors, it will have a definite niche, no more, no less.

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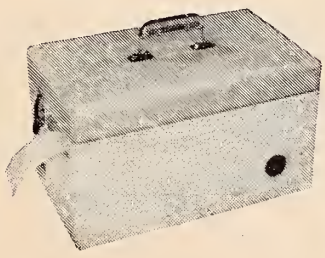


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RULES AND REGULATIONS

of the

STATE DEPARTMENT OF HEALTH

for the

CONTROL OF COMMUNICABLE DISEASES

Diseases Declared Reportable

Regulation 2. — The following list of diseases are declared to be reportable to the state and the local health departments:

Actinomycosis
Anthrax
Chancroid
Chickenpox (varicella)
Cholera
Coccidioidomycosis (coccidioidal granuloma, "Valley Fever")
Conjunctivitis, acute infectious of the newborn, not including trachoma)
Dengue
Diphtheria
Dysentery, amebic (amebiasis)
Dysentery, bacillary
Encephalitis, infectious (lethargic and non-lethargic)
German measles (rubella)
Glanders
Gonorrhea
Granuloma inguinale
Hemorrhagic jaundice (spirochetosis icterohemorrhagic, Weil's disease)
Hookworm disease (ancylostomiasis)
Impetigo contagiosa
Influenza
Leprosy
Lymphogranuloma venereum (inguinale) (climatic bubo)
Malaria
Measles (rubeola)
Meningococcus meningitis (cerebrospinal fever)
Mumps (infectious parotitis)
Paratypoid fever
Pemphigus neonatorum
Plague, bubonic, septicemic, pneumonia
Pneumonia, acute lobar
Poliomyelitis
Psittacosis
Puerperal infection (puerperal septicemia)
Rabies
Relapsing fever
Rheumatic fever
Ringworm
Rocky Mountain spotted (or tick) fever
Streptococcal infections
    Scarlet fever
    Septic sore throat
    Erysipelas
    Puerperal infection
Smallpox (variola)
Syphilis
Tetanus
Trachoma
Trichinosis
Tuberculosis, pulmonary
Tuberculosis, other than pulmonary
Tularemia
Typhoid fever
Typhus fever
Undulant fever (brucellosis)
Whooping cough (pertussis)
Yellow fever

The following diseases are reportable but not commuincable:

Botulism
Food infections and poisonings
Pellagra

LOCATION INQUIRIES

BODKIN, EDMUND C., M.D., Miners Hospital, Beckley, W. Va.; *U* Graduate of the Long Island College of Medicine in 1939 and interned at St. Vincent's Hospital, New York City. Is board certified and holds licenses in several states. Has served his military obligations and desires clinic or associate type practice, specializing in urology. Is available Jan. 1, 1959.

CAROLLO, JOHN ANDREW, JR., M.D., 7216 North 1st Place, Phoenix, Ariz.: *GP* Has graduated from the University of Pennsylvania School of Medicine in June of this year. Has accepted appointment of internship at the Fresno County General Hospital, Fresno, Calif., beginning July 1, 1958 and extending through June 31, 1959. He is eligible for military service. Desires assistant or associate type of practice and will be available July 1, 1959.

ELLNER, HAROLD J., M.D., VA Hospital, 130 Kingsbridge Road, New York City, N. Y. *U.* 1953 graduate of the Cornell Medical School and interned at Michael Reese Hospital, Chicago, Ill. Is licensed by the National Board of Medical Examiners and the state of New York. He has fulfilled his military obligations and desires

group or associate practice specializing in urology. Will be available August 1958.

GARDNER, AUSTIN LEONARD, M.D., 27 Elmwood Road, Chiswick W4, London, England; S. Is a 1952 graduate of the Indiana University School of Medicine; and interned at the Bellevue Hospital, New York City. Is licensed in the states of Indiana and New York and desires clinic or associate practice specializing in surgery. Will be available November 1958.

GERBER, EDWARD, JR., M.D., 801 Windsor Street, Marion, Ohio; S. Is a 1951 graduate of the New York Medical College and served internship at St. John's Episcopal Hospital, Brooklyn, N. Y. He is licensed in the states of Connecticut and Ohio and is board certified. Has fulfilled his military obligations and desires clinic or associate type of practice. Is available September 1958.

GILDEA, ALFRED R., M.D., 548 Emporia, Aurora 8, Colorado; *GP*. Is a 1928 graduate of the Syracuse Medical School and is licensed in the states of New York and California. Has spent 15 years in the U.S. Navy and is now retired due to medical disability. Desires a limited general practice with a group or associate. Will be available July 1958.

HILL, GRADY E., JR., M.D., 407 Sandalwood, San Antonio, Texas; *GP*. Is a 1955 graduate of the Tulane Medical School and interned at Charity Hospital, New Orleans, La. Is now completing military obligations. Is available February 1959.

HOPKINS, J. HAROLD, M.D., P.O. Box 158, Walnut, Ill.; *GP* and S. Is a 1926 graduate of the Northwestern University Medical School and interned at the West Suburban Hospital, Oak Park, Ill. He is licensed in the state of Illinois and is incligible for military duty because of age. Desires general or clinic type of practice with no obstetrics. Does not indicate availability in the immediate future.

WEAVER, ROBERT EDWARD, M.D., 1133 West Frey Street, Stephenville, Texas; *I*. Is a 1949 graduate of the University of Pennsylvania School of Medicine and interned at the St. Mary's Group of Hospitals of St. Louis University, St. Louis, Mo. Is board certified and holds licenses in the states of Pennsylvania and Texas. Has fulfilled his military obligations and prefers group practice or an associate specializing in internal medicine. Will be available August 1958.

WHEREATT, RICHARD R., M.D., 88 Monee Road, Park Forest, Ill.; S. Is a 1954 graduate of the Marquette University School of Medicine and interned at St. Joseph's Hospital, Milwaukee, Wis. Served surgical residency at Illinois Central Hospital, Chicago, Ill. Has fulfilled his military obligations and desires associate and part time industrial type practice specializing in surgery. Is available January 1959.

Young physician completing military service desires temporary position with practitioner or group from November 1, 1958 until June 1, 1959. Graduate Indiana University, internship Receiving Hospital, Detroit. General experience in medicine, obstetrics, pediatrics on specialized services during military tour.

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ASHFORK — Pop. 700 — North centrally located — Railroad center — Contact the Women's Club, Ashfork, Ariz.

BENSON — Excellent opportunity for GP — This David-Benson trade area has about 5,000 population with only one doctor available. A small sleep-in hospital can be set up very easily. Hospital 25 miles away. Chamber of commerce will furnish telephone answering service, nine to five. Contact Bernard Fisher, D.D.S., medical committee of the chamber of commerce, Benson, Ariz., or James M. Hesser, M.D., Sixth and Huachuca streets, Benson, Ariz.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R.N., Camp Verde, Ariz.

FLAGSTAFF — Pop. 17,500 — Largest city in the north central Arizona trading area. Excellent opportunity for an EENT doctor. Contact K. O. Hanson, M.D., secretary, Coconino County Medical Society, Five N. Leroux, Flagstaff, Ariz.

GILA BEND — Pop. 2,500 — 80 miles west of Phoenix — Nearest town to the Painted Rock Dam Project — Good opportunity for general practitioner. Cattle, cotton and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HOLBROOK — Population above 7,000. Lo-

cated in the heart of the northeastern pine country of Arizona on U.S. Route 66. Need services of general practitioner. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

MIAMI — Opportunity for GP — Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. This community is served by numerous small mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community located near New Mexico-Arizona border — Pop. 10,000 — Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

SAFFORD — In need of GP—Pop. 6,000—Has ideal year around climate with good schools, parks, swimming pool, golf course, Elks club. Private hospital, open staff. Surgical privileges after six months if qualified. Completely equipped office for rent and equipment for sale. Contact M. T. Sandeno, M.D., 803 Seventh Street, Safford, Ariz.

SHOW LOW — Pop. 1,500 — Trading center for some 10,000 people. Summer and winter recreation area, cool climate and beautiful forest country. At present there is no M.D. in Show Low and it wishes to locate a doctor there who would help establish a hospital. The town is anxious to locate a doctor and promises full co-operation. Contact either Mary and Eric Marks, Paint Pony Lodge, Show Low, Ariz., or Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz., or Mr. Mitchell Bushman, Show Low, Ariz.

ST. JOHNS — Seriously needs a doctor of medicine, preferably a general practitioner, to locate in this east central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP — Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix. Elementary and high schools, churches of all denominations. Complete office and equipment for GP available on reasonable term lease or purchase. Contact Mr. Peter Falbo, president, chamber of commerce, 9112 West Van Buren St., Tolleson, Ariz.

TUCSON — The VA hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training, as they have the local men in this field available for consultation service. State license is necessary but not necessarily an Arizona license. Contact S. Netzer, M.D,. director, professional service, VA hospital, Tucson, Ariz.

YOUNGTOWN — Pop. 130—Located 16 miles from Phoenix and just a few miles from several small towns, each a potential field of practice. Most residents are 60 years of age or older and are in need of medical care. Office space is currently provided at no rental. A medical center is being planned. Interested doctors may contact Mr. Sid Lambert, Box 61, Marionette, Ariz.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Ariz.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira. E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Ariz.

PRACTICAL CLINICAL CHEMISTRY
by Alma Hiller. 2nd ed. 265 pages. (1957) Thomas. $6.50.

If you know this product of a Chicago biochemist, suffice it to say that the preface indicates six new specific simplifications in techniques. If you do not know it, suffice it to say that the author writes from the bench with explicitness as her goal, and the publication of a new edition is testimony to the reaching of that goal.

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SURGEONS ALL
by Harvey Graham, M.D. 459 pages. Illustrated. (1957) Philosophical. $10.

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Woman's Auxiliary

REPORT OF 28TH ANNUAL MEETING

WOMENS AUXILIARY TO THE ARIZONA MEDICAL ASSOCIATION

ONE hundred and thirty-five women registered for the 28th annual meeting of the Women's Auxiliary to the Arizona Medical Association which was held in conjunction with the men's meeting at the San Marcos Hotel in Chandler on April 30, May 1, 2, and 3.

The meeting opened with a general session on Thursday, May 1, with the president, Mrs. Charles Powell of Yuma, presiding. Most important business was the election of officers. At a luncheon at the Maricopa Inn in Mesa, the national president of the Women's Auxiliary to the American Medical Association, Mrs. Paul Craig of Wyomissing, Pa., was the honored guest. Also honored were the sweepstakes winner and the winner in the biological division of the central-regional Science Fair and the winner in the biological division of the southern Science Fair.

On Friday evening, Mrs. Craig conducted a workshop for officers and members of the auxiliary. She reminded retiring officers that, while their responsibility as officers in the auxiliary may be nearly over, their responsibility to the community continues. This prompts the need for better communication among people. For this reason she recommended that everyone read "Language in Thought and Action" by S. I. Hayakawa. She also pointed out that the problem of the aged and their care is the business of each doctor's wife and she and her husband must make it their business if we are to avoid a socialized program.

At noon on Friday 115 members attended the luncheon and fashion show at the Arizona Country Club. Mrs. Craig installed the new officers: Mrs. Melvin Phillips, Prescott, president; Mrs. Hiram Cochran, Tucson, president-elect; Mrs. Robert Cummings, Phoenix, first vice president; Mrs. Robert Stratton, Yuma, second vice president; Mrs. John K. Bennett, Tucson, recording secretary; Mrs. Ray Inscore, corresponding secretary; Mrs. Charles Powell, Yuma, Mrs. William Bishop, Globe, and Mrs. Jay Sitterley, Flagstaff, directors.

At the Ladies' Nine Hole Golf Tournament on Thursday afternoon, winners were Mrs. Warren Sergent, low net; Mrs. Robert Beers, low gross; and Mrs. Melvin Phillips, low putt.

Respectfully submitted,

BARBARA L. ROWLEY
Convention Chairman

INTRODUCTION TO ANESTHESIA
by Robert D. Dripps, M.D., James E. Eckenhoff, M.D., and Leroy D. Vandam, M.D. 266 pages. Illustrated. (1957) Saunders. $4.75.

Intended as an introductory volume, the lore of anesthesia as developed and applied at the Hospital of the University of Pennsylvania is reported in a volume dealing with the fundamental aspects of techniques and the principles behind the drugs. Specific detail is wanting.

Stacey's Medical Books, San Francisco, California.

PRACTICAL ALLERGY
by M. Coleman Harris, M.D. and Norman Shure, M.D. 470 pages. Illustrated. (1957) Davis. $7.50.

The authors cover the subject as a possible etiologic factor in all fields of medicine. Full consideration is given to the laboratory procedures, skin tests, pollens, foods, respiratory and dermatological allergy, drug reactions; bacterial, physical insect allergy, collagen disease; technic of specific allergy desensitization; non-specific therapy; emotional factors; allergy office technics — all the modern aids in diagnosis and treatment.

Stacey's Medical Books, San Francisco, California.

TUMORS OF THE SOFT SOMATIC TISSUES
by George T. Pack, M.D., and Irving M. Ariel, M.D. 820 pages. Illustrated. (1958) Hoeber-Harper. $30.

Both a comprehensive review and an analysis of experience over 25 years are here attempted. The six parts are: natural history, classification, incidence, and etiology; principles of treatment; classification and treatment of specific tumors; sarcomas of childhood; tumors by regional anatomy; and prognosis.

Stacey's Medical Books, San Francisco, California.

UNEXPECTED REACTIONS TO MODERN THERAPEUTICS: Antibiotics
by Leo Schindel, M.D. 146 pages. (1957) Thomas. $3.

A review of the literature on the side-effects of antibiotics deals with unexpected reactions and describes signs and symptoms. The management of diseases caused by antibiotic resistant bacteria is emphasized.

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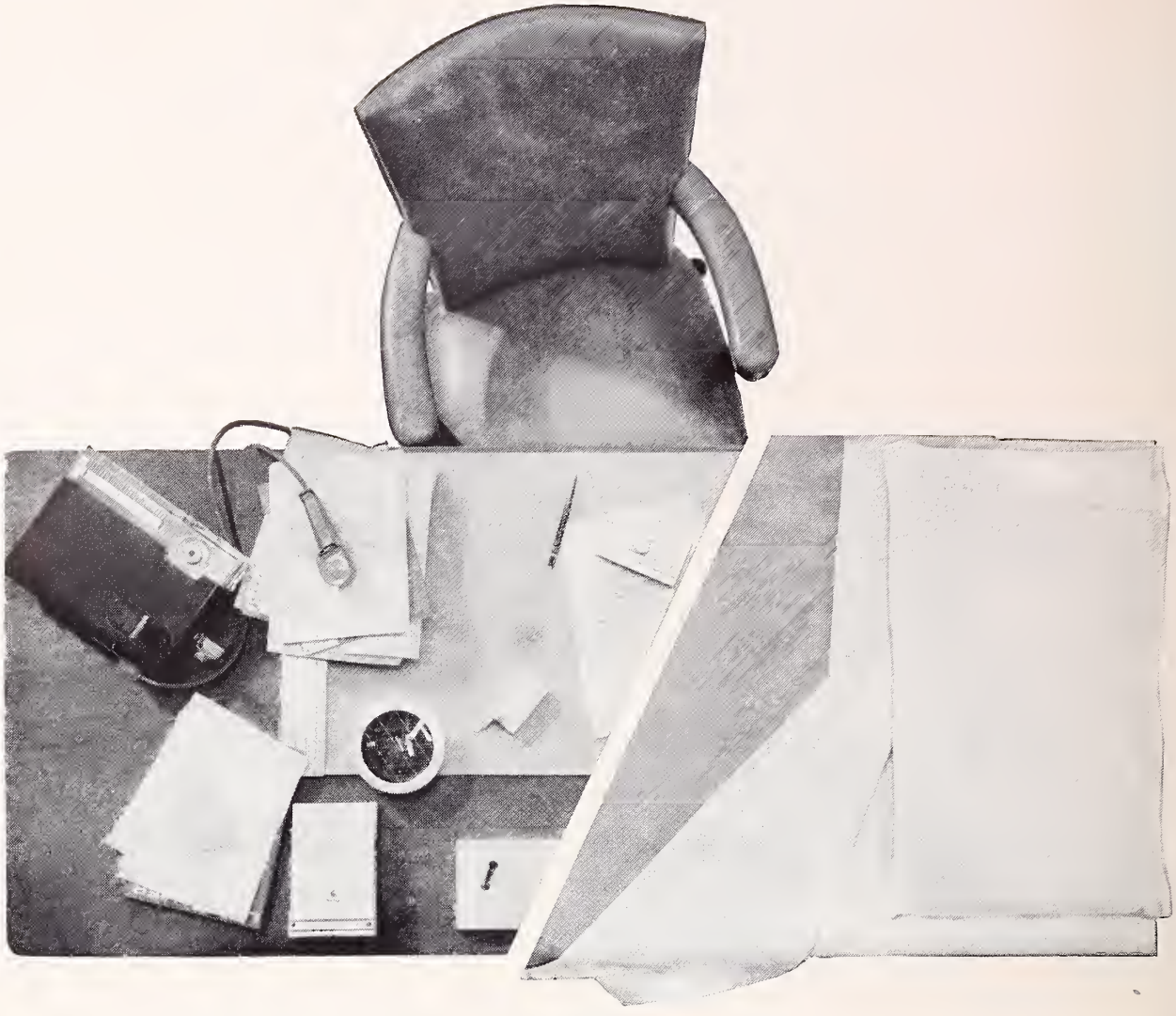
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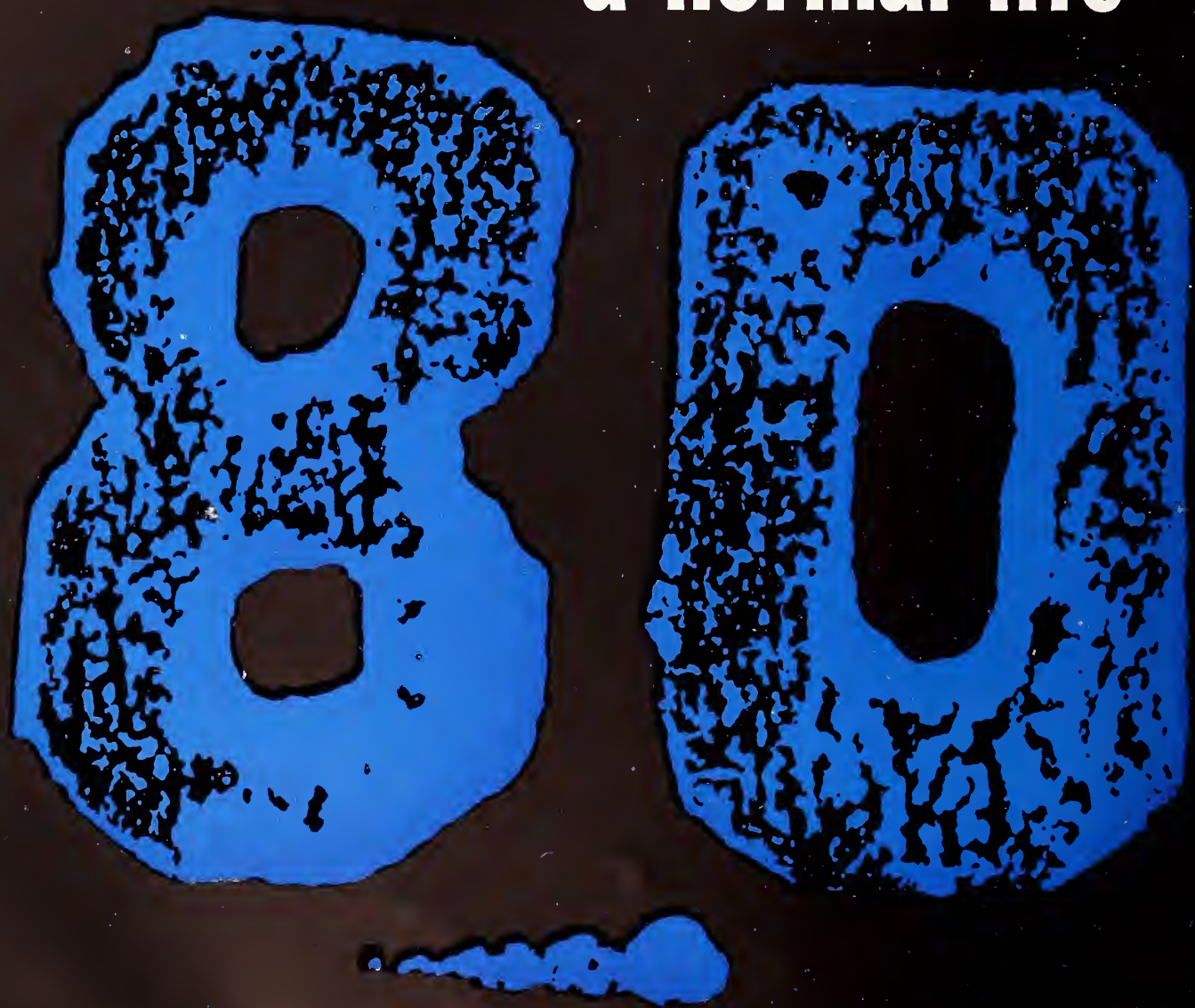
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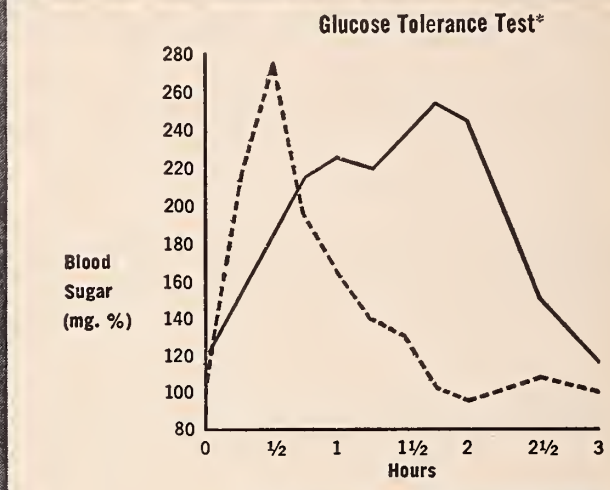
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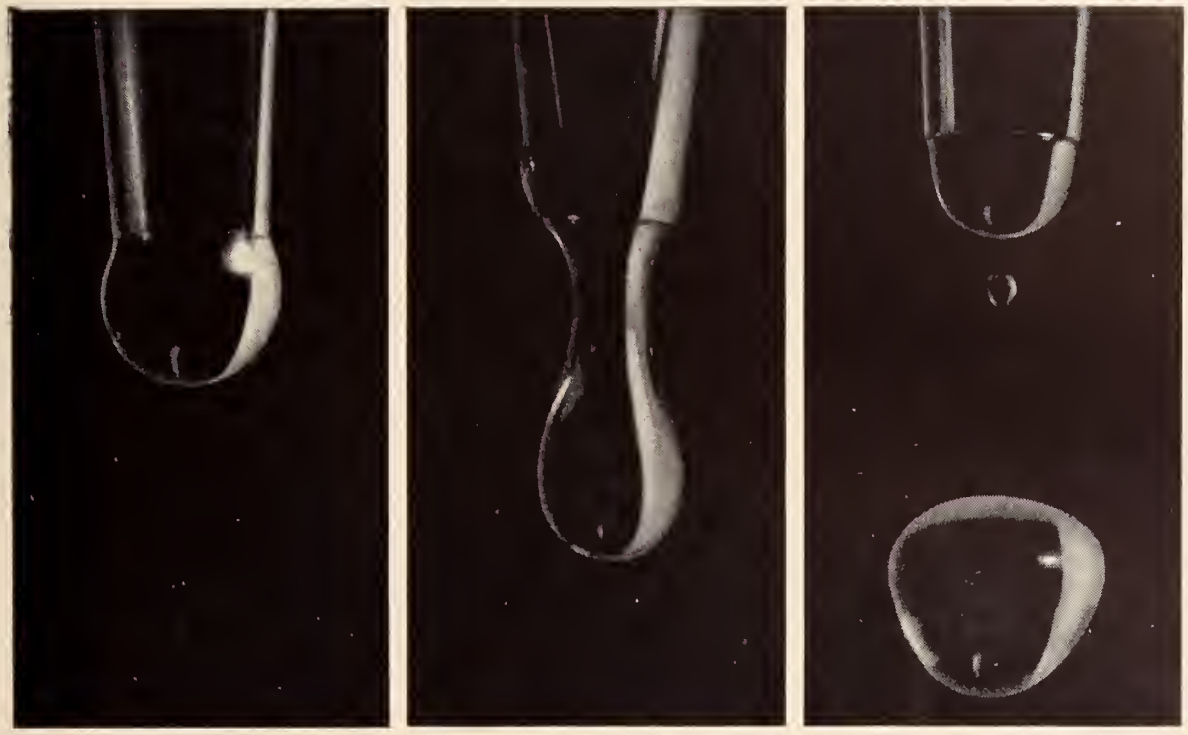
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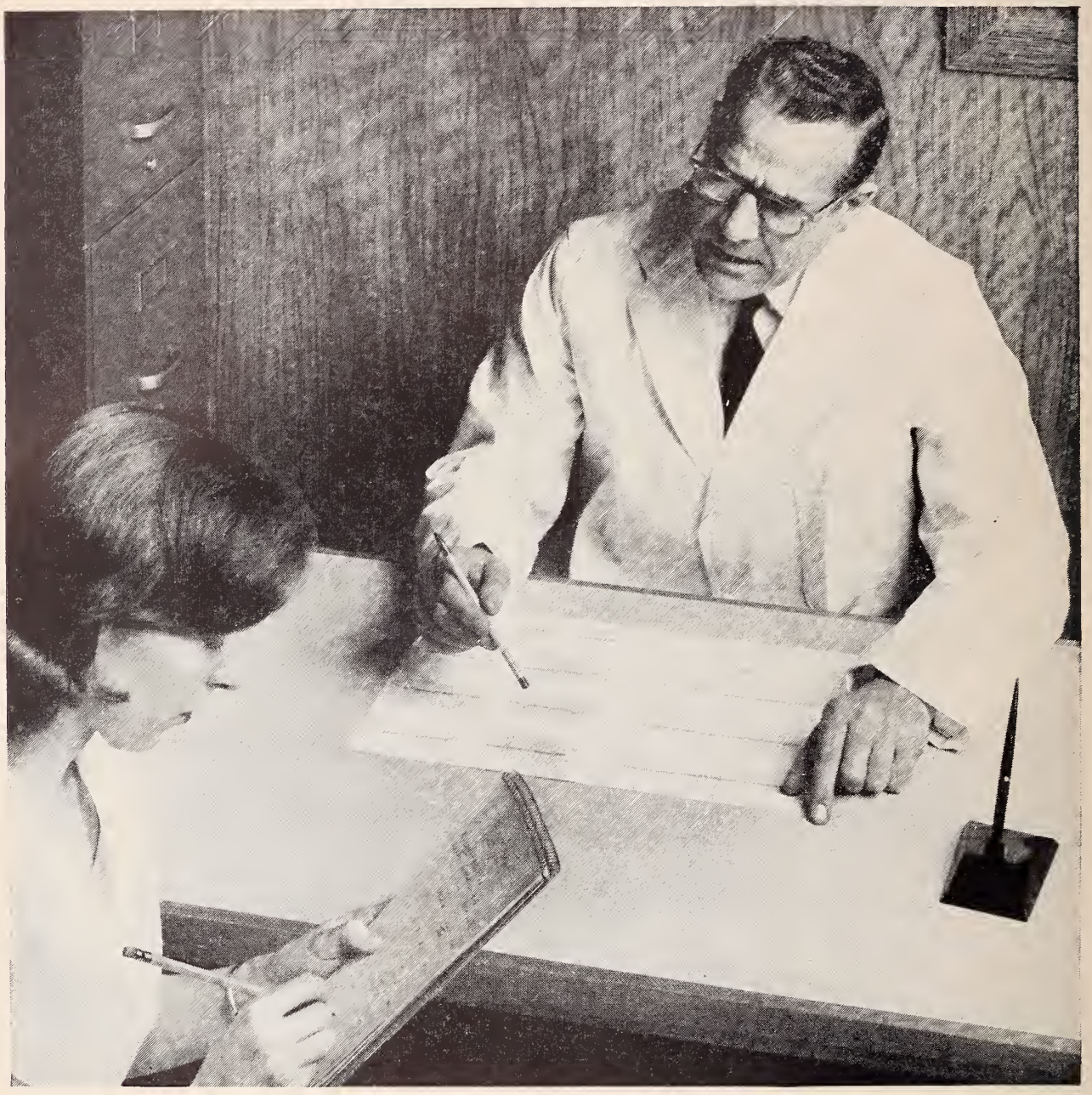
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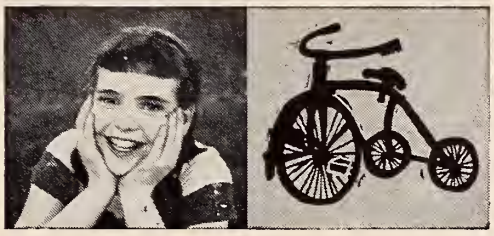
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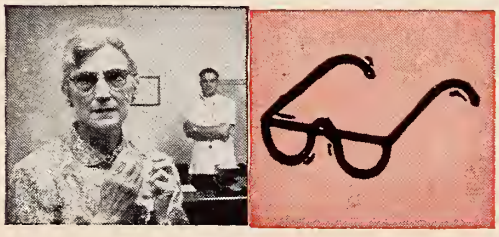
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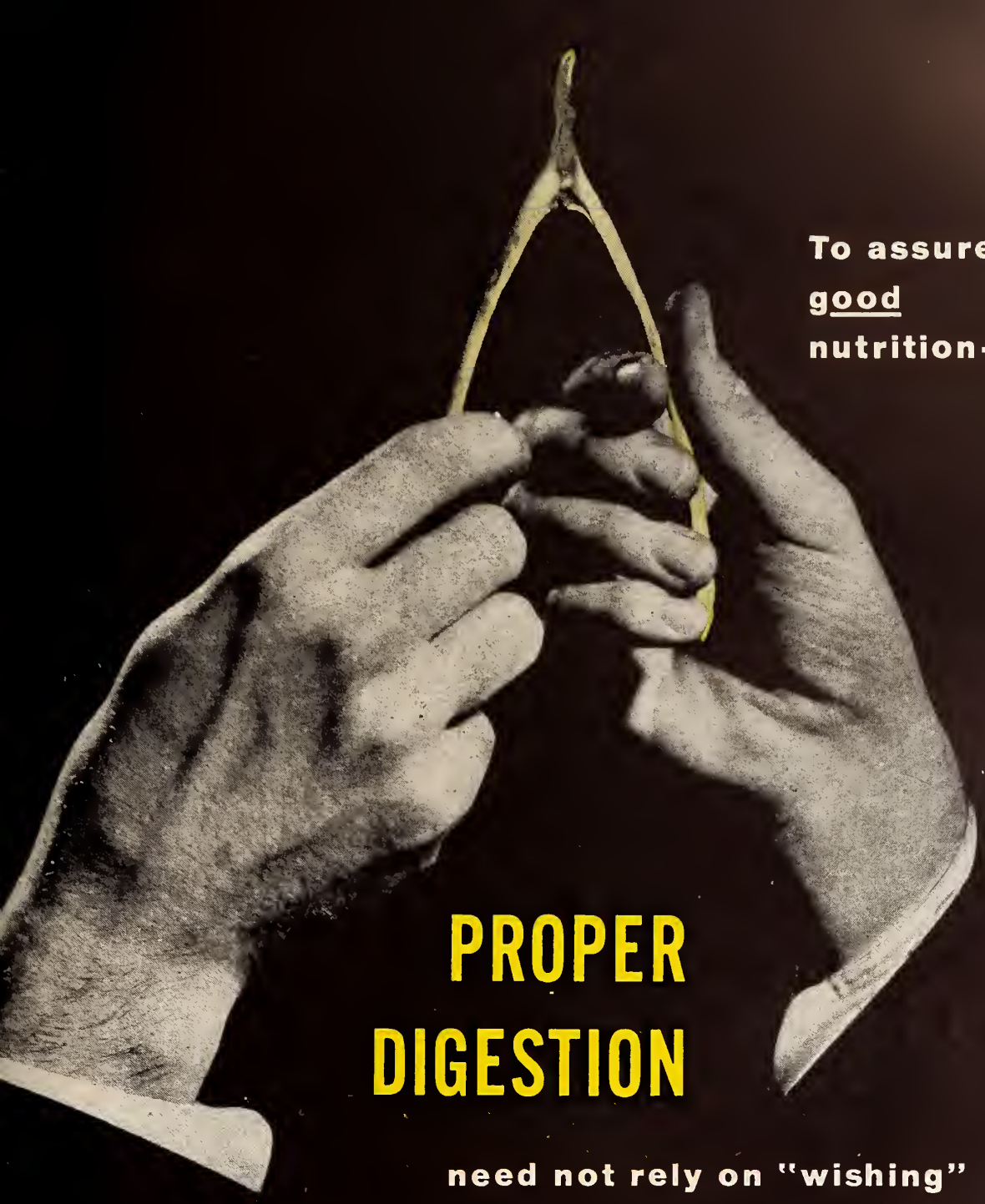
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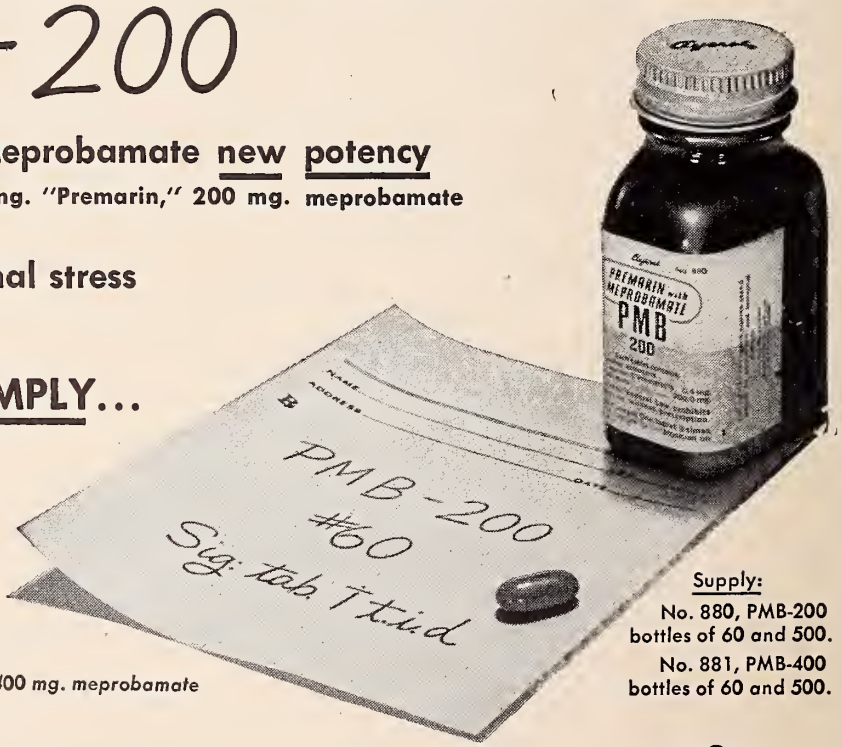
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Ford, R.V., and Moyer, J.H.: Rauwolfia Toxicity in the Treatment of Hypertension: Some Observations on Comparative Toxicity of Reserpine, a Single Alkaloid, and Alseroxylon, a Compound Containing Multiple Alkaloids, Postgrad. Med., January, 1958.



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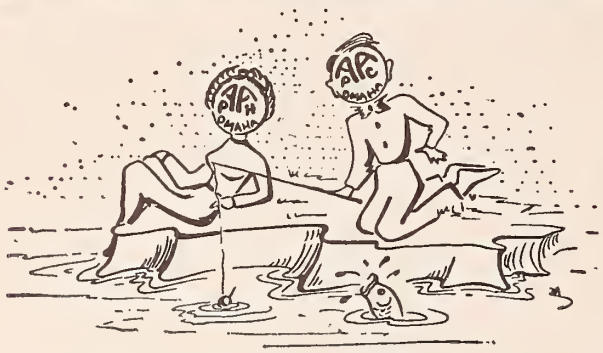
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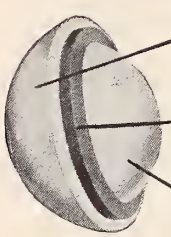
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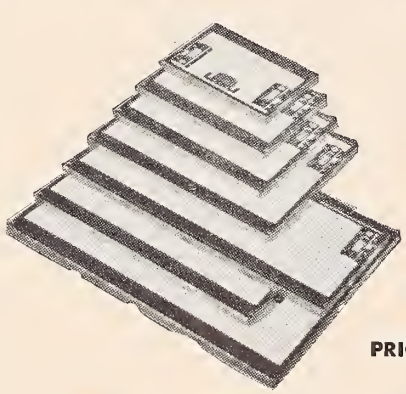
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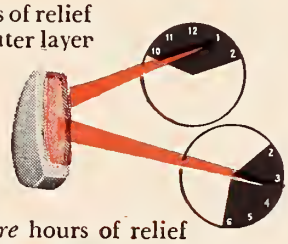
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references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

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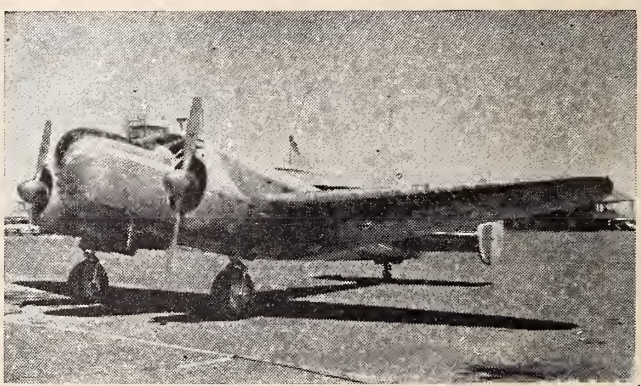
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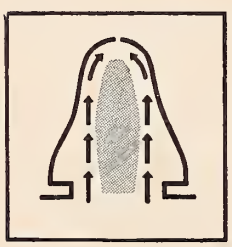
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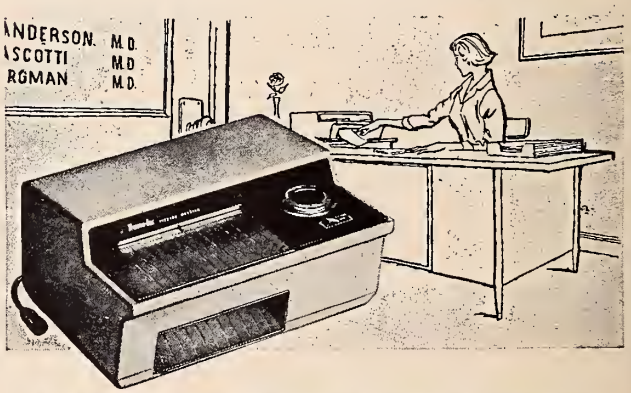
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STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
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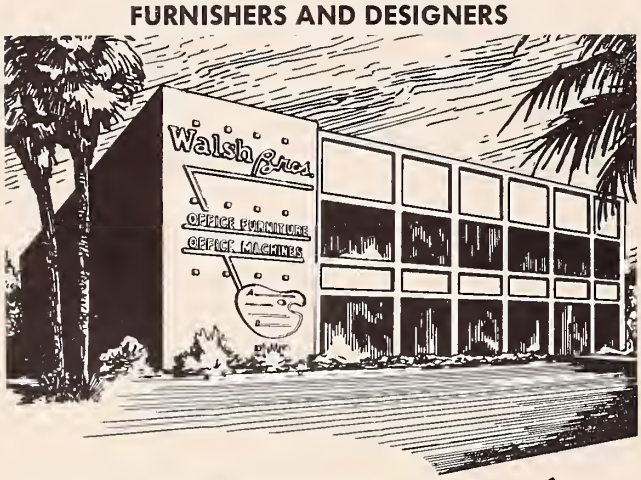
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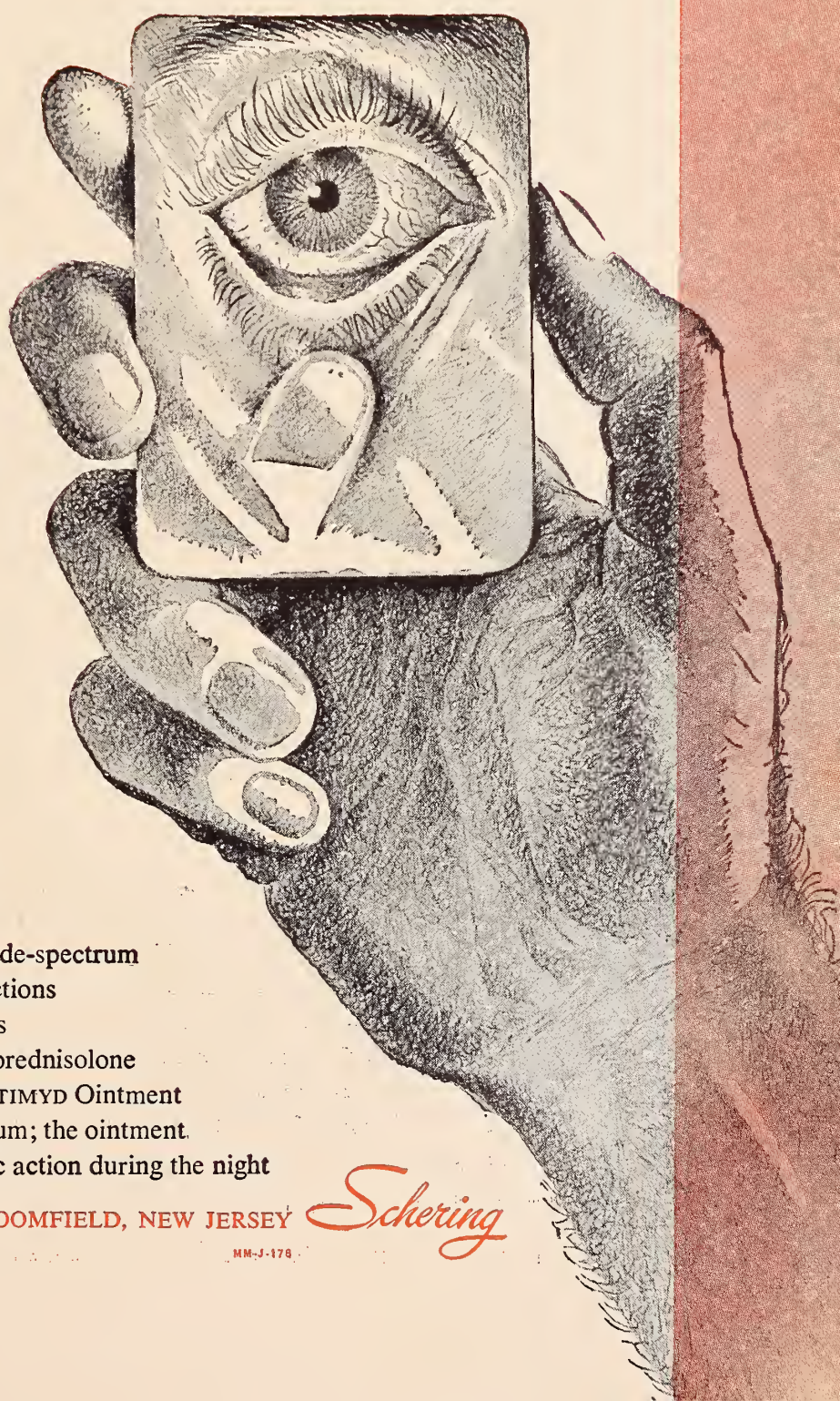
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ARIZONA MEDICINE
Journal of Arizona Medical Association

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Original Articles

MITRAL COMMISSUROTOMY

By Alfonso Topete, M.D., F.A.C.S., J. Trinidad Pulido, M.D., Héctor Huizar Lara, M.D., Luis Castellanos Gortazar, M.D.
(From the Department of Surgery and Surgical Investigation. University of Guadalajara, Guadalajara, México.)

AFTER years of difficulties and trials, many of which have jeopardized the evolution of the mitral commissurotomy, this procedure has been definitely accepted as the most effective means for treating mitral stenosis. Cutler, Smithy, Harken, Lam and especially Bailey have played an important part in this surgical conquest. Today this procedure is being followed in many countries and the resultant statistics now available make possible an orderly study of this technic.

The object of this paper is to report the results obtained by mitral commissurotomy in the past five years, during which this procedure has been routine in the Department of Surgical Investigation of the University of Guadalajara and its associated institutions; the Civil Hospital, Social Security Hospital and the Ferrocarril del Pacifico Hospital. Also are included the cases treated at the Santa Margarita Hospital.

Since August of 1952 to date, we have performed more than 400 mitral commissurotomies. We are reporting on 350 of these patients, the remainder being either too recent to permit of scientific evaluation or not available for adequate follow-up observation.

Possibly because of the climatic conditions in the mountainous regions and the high altitude elevation of many of its cities, Mexico has an unusually high incidence of rheumatic fever. Both Mexico City and Guadalajara fall in this high elevation zone.

In our region, we find that approximately 80 per cent of the victims of rheumatic fever develop endocarditis and that approximately 80 per cent of these patients with endocarditis develop mitral stenosis even in this antibiotic age. This means that about 60 per cent of rheumatic fever victims are potential candidates for commissurotomy.

In this group of 350 commissurotomized patients, it is interesting to remark that 90 per cent of them were born and reared in mountainous or elevated zones with a high humidity, while only 10 per cent are from the relatively dry zones,

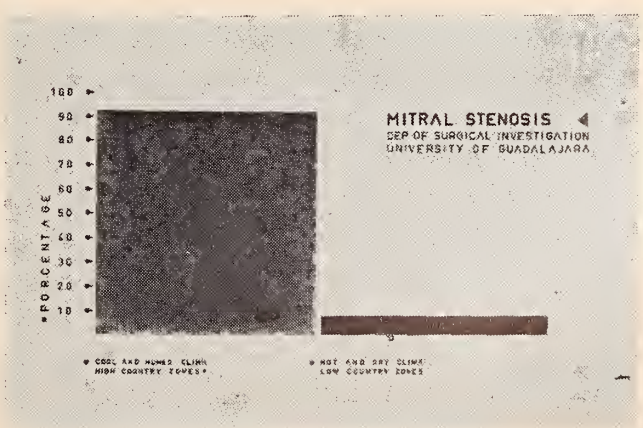


Figure 1

Paper presented at the sectional meeting, American College of Surgeons. Phoenix, Arizona, Dec. 1957.

We wish to express our appreciation to Mrs. Lorraine Small de Chavez for her valuable technical assistance in this paper.

such as the West Coast of Mexico, which in its northern part provides our dryest littoral (Fig. No. 1).

The great majority of our patients have been from among the economically insolvent, with inadequate nourishment and unhygienic surroundings. The incidence of amygdalitis was notably higher than in other economic groups. In many of our patients the general condition was so unsatisfactory that we were forced to first subject them to a special pre-operative preparation before subjecting them to surgery. (Fig No. 2).

The minimum age of patients undergoing surgery was 14 years; the maximum 58 years. The greater number fell within the 22- to 30-year age group. Females comprised 70 per cent of the cases (Fig. No. 3).

It is indisputable that a better knowledge of cardiorespiratory physiology and physio-pathology has been the decisive factor in the improved results we now obtain in the treatment of this disease. The better understanding of the mitral valvular mechanism on the part of the modern surgeon is also a contributing factor.

We have practiced hemodynamic studies in a group of our patients, and we consider catheterization has improved our knowledge in hospitalized patients. Although in certain groups of patients catheterization may not be necessary, in a university institution this procedure is of importance. As a result of the hemodynamic studies we have made, we find that the pre-capillary pressures are closest to the actual resistance in the arterial-pulmonary region, as this graph demonstrates (Fig. No. 4). In a group of 90 patients subjected to pre-operative study, we found that the pressure of the pulmonary artery has a systolic oscillation between 40 and 100 m.m. of Hg. This would correspond in the pre-capillary region, to an oscillation of beween 10 and 30 m.m. of Hg. (Fig. No. 5).

We know that the proteinic resistance of the endothelial protoplasm is approximately 30 m.m. of Hg. After this the danger of acute pulmonary edema is imminent. However it is important to point out that there have been patients in which these figures have been greatly increased, and who have not developed acute pulmonary edema. We cite as an example a patient, 48 years old, who has suffered with a mitral stenosis since

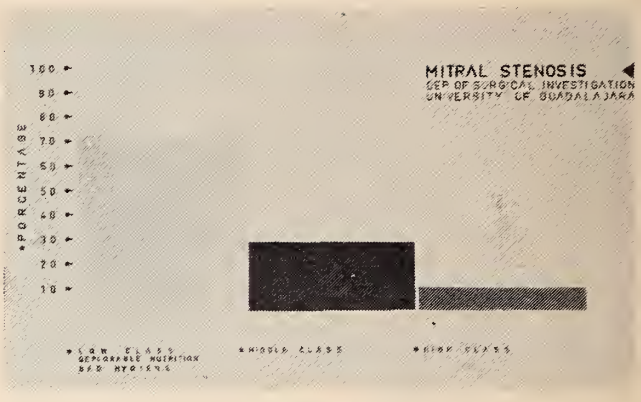


Figure 2

AGE AND SEX.

MINIMAL AGE.....	14 YEARS OLD
MAXIMAL AGE.....	58 YEARS OLD
GREATEST NUMBER OF CASES.....	22 TO 30 YEARS
FEMENINE SEX.....	70 %
MASCULINE SEX.....	30 %

o-o-o-o-o-o

Figure 3

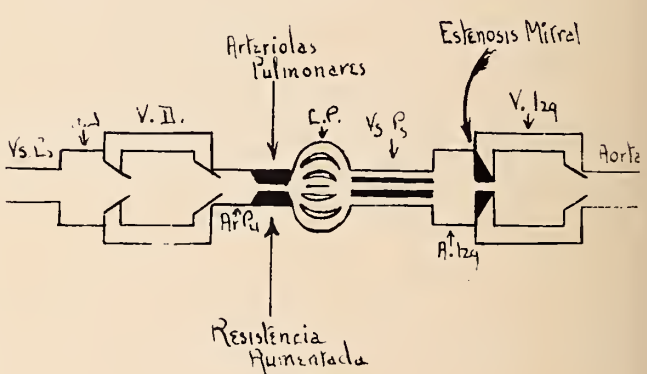


Figure 4

SYSTOLIC PRESSURE IN PULM. ARTERY

		No. of cases.
FROM	40 TO 50 m.m. Hg.....	7
"	51 " 60 " " "	21
"	61 " 70 " " "	37
"	71 " 80 " " "	15
"	81 " 90 " " "	9
"	91 " 100 " " "	1
	TOTAL	90

Figure 5

he was 12 years old and has developed a large cardiomegaly, with a pre-capillary pressure of 85 m.m. of Hg. This patient is ambulatory (Fig. No. 6). The explanation of this phenomenon might be the development of hypertrophic defense of the capillary endothelial part, which would impede the passage of liquid to the pulmonary alveolei. However we believe that the number of cases in which this occurs is extremely rare.

We have also found by this hemodynamic study, that there is not always a direct relation between the rise of pressure in the pulmonary artery and the degree of stenosis. In cases which we considered stenotic we have sometimes found market insufficiency of the mitral valve with great pulmonary hypertension. Again we have found that the more or less marked dyspnea in a patient with mitral stenosis, does not always correspond to a high pulmonary hypertension. In general terms however, when these two manifestations are studied and catalogued in combination with the clinical and paraclinical aspects of the case, they can be of great significance.

The post-operative hemodynamic findings in a small group of patients studied, manifests no appreciable change in the course of the first months, in spite of the fact that the clinical aspect shows improvement. The lowering of the pulmonary tension has been observed after the sixth month. It is necessary here to remark that in some cases this lowering of tension has not taken place until a year has elapsed, although the clinical aspect has showed marked improvement.

We believe that besides the specific condition of the valve, the most important consideration is the state of the pulmonary connective tissue and the cardiac muscular fiber. We believe that nothing may be achieved for a patient who manifests irreversible alterations of one or both of these conditions, as they tend to become progressively aggravated with time, or following surgery. (Fig. No. 7).

We know that with one group of patients the prognosis will be easy and even obvious. In others it will prove difficult if not impossible. Clinic, X-ray, the electrocardiogram, and hemodynamia together may assist in partially solving some of these cases.

Because of the pulmonary factor, the hemodynamia, as we have seen, will tend to give high

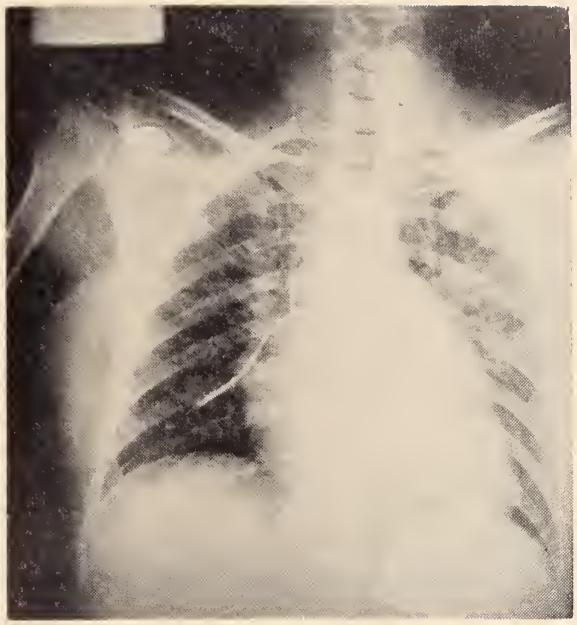


Figure 6

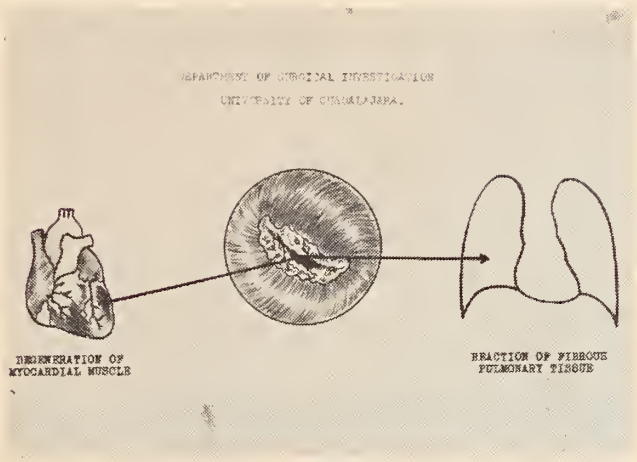


Figure 7

precapillary readings. The electrocardiogram is an excellent coadjunctant in discovering the condition of the miocardiac fibre. (Figs. Nos. 8, 9, 10 and 11).

SELECTION AND GROUPING OF CASES.

Our cases have been grouped according to the classification of the American Heart Association.

The majority of cases correspond to those of group II and III, only two in group IV and none in group I.

Grouping of cases
(American Heart Association)

Group I	0
Group II	280
Group III	68
Group IV	2
Total	350

It is necessary to note that it was frequently difficult to make a clear and exact distinction between groups II and III.

RESULTS:

Mortality. The total mortality in this group of 350 cases was as follows:

		per cent
During Surgery	1	(0.2)
Post operative	9	(3.4)
Later	12	
Total	22	6.1

According to groups the greatest percentage of mortality was found among those of group IV. We have seen only two cases in this group, one of whom died. In the nine cases of post-operative deaths, four were due to thrombosis; of these three had auricular fibrillation and two had antecedents of thrombo-embolism. Among the delayed deaths two were due to embolism, one three months after surgery and the other six months after. The rest of the deaths were due to cardiac insufficiency and in one case the delayed death was due to valvular insufficiency.

CLINICAL RESULTS: Of the 328 cases alive 218 (60.4%) have shown satisfactory results to date. These patients have returned to close to normal activities, avoiding excesses. Our first case is now five years post surgery, and is now working. Some of these patients have returned to work, although some have been forced to obtain less strenuous occupations than those indulged in before commissurotomy.

It is important to remark that the majority of our surgical cases have been females. When we report a return to normal activities after surgery this does not therefore necessarily imply a return to hard physical, or even mental labor, as in our society the majority of women are not employed outside the home.

28 (8%) of these cases have shown no clinical improvement after surgery, and eight cases show definitive post-surgical deterioration. Two cases have developed mitral re-stenosis and are now hospitalized for repeat commissurotomy.

CLINICAL RESULTS:

	No. of cases	*Per cent*
Satisfactory	218	60.4
Good	74	22.05
Regular	28	8.5
None or bad	8	2.3

It is interesting to observe that many of the cases in the last two groups, showed clinical, electrocardiographic, or hemodynamic suspicions of myocardial or fibrous pulmonary dam-

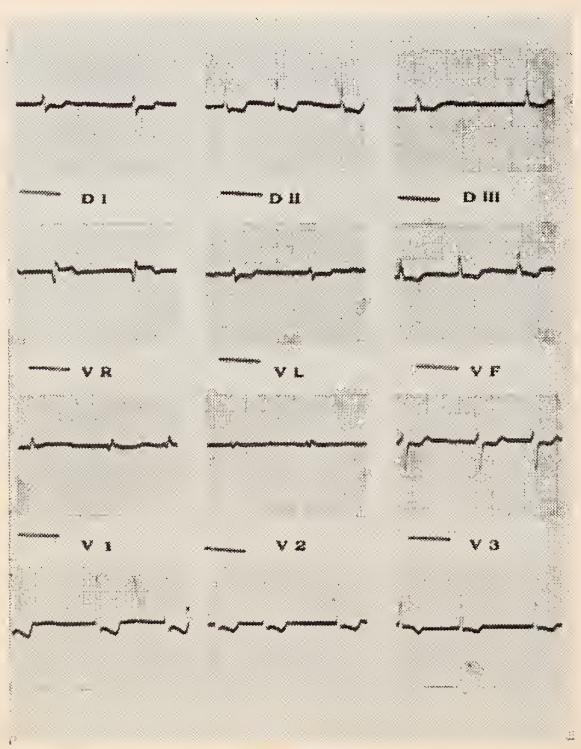


Figure 8

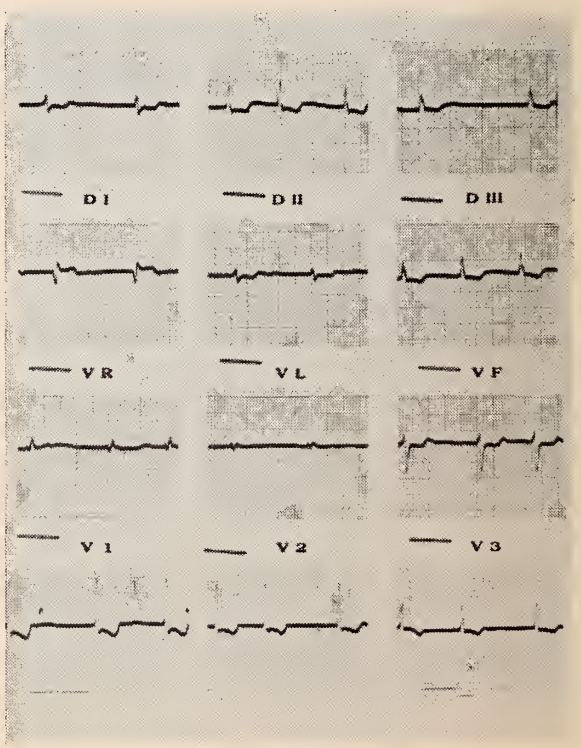


Figure 9

age before surgery.

Among all groups of our surgical cases, there were twelve in pregnant women. These were subjected to surgery from the first to the seventh month of pregnancy. The indication for surgery in all cases was cardiac insufficiency with some degree of pulmonary edema. Three of these cases, operated upon during the sixth and seventh month of pregnancy, showed no improvement in the control of cardiac insuffiency by medical treatment, and a considerable degree of hemoptysis was present. The principal indication for surgery during the earlier stages of pregnancy was repetition of the cardiac insufficiency.

There have been no mortalities in this group of pregnant women. In one case there has been only partial improvement after surgery. This patient, three months pregnant at the time of surgery, had a normal delivery. Ten other patients have carried to term. One is expecting soon. With the exception above cited, all of these patients have shown satisfactory post-surgical results. Eight were classified in Group II and four in Group III.

One of the cases classified under Group II was that of a 28 year old male suffering from Hansen's disease. This patient developed mitral stenosis and was subjected to mitral commissurotomy. There was no previous history of

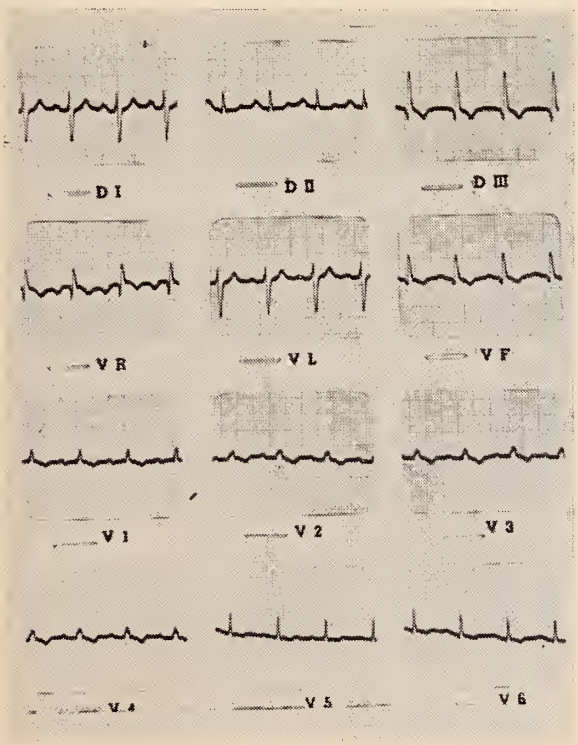


Figure 10

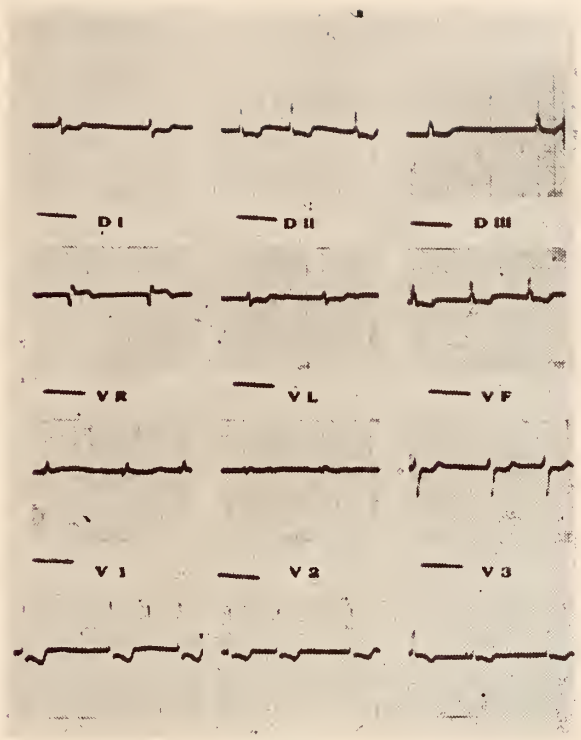


Figure 11

rheumatic fever. He had been in the Institute of Dermatology of the University of Guadalajara, under medical treatment for lepromatous leprosy for two years. Soon after the disease had been brought under control by medical treatment, this patient began to observe some dyspnea. This symptom increased until it was present even after minimal exertion. He was sent to our service where we found both the electrocardiographic and hemodynamic examinations confirmed our clinical diagnosis of mitral stenosis. This patient was taken to surgery Sept. 10, 1955, Stenosis, about one-quarter centimeter square in area, without regurgitation was discovered. Anterior and posterior commissures were amply opened. This patient had a remarkable recovery and at present is working as a farmer. Histological examination of the extirpated auricular appendix showed no Aschof's nodules, nor were the characteristic manifestations of inactive rheumatic lesions present. No lepromatous nodulations were found, but histological evidence of involutive manifestations as observed in leprous skin lesions subjected to medical treatment, was reported by our Pathology Department. (Figs. No. 12 and 13.)

SUMMARY

Mitral commissurotomy has been definitely

established as the most effective treatment for mitral stenosis.

Best results have been obtained in cases in Group II, as observed in this report.

It is important to emphasize that the condition of the cardiac muscle, pulmonary fibrous tissue and the valve itself, are important factors for a favorable prognosis for surgery.

Our statistics are based on 350 surgical cases, dating from November 1952 to November 1957.



Figure 12

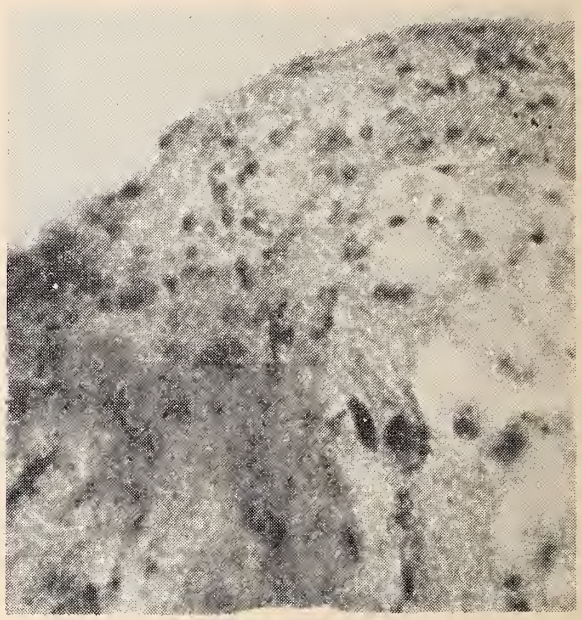


Figure 13

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COMISUROTOMIA MITRAL

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DESPUÉS de dificultades y atentados, mucho de los cuales han interferido con la evolución de la comisurotomía mitrál, éste procedimiento ha sido definitivamente aceptado como la manera mas efectiva en el tratamiento de la estenosis mitrál. Cutler, Smithy, Harken y especialmente Bailey han jugado ún papel importante en esta conquista quirúrgica, Hoy éste procedimiento es usado en muchos países y las estadisticas ahora disponíbles hacen posible el estudio ordenado de esta técnica.

El objecto de este trabajo as reportar los resultados obtenidos con la comisurotomía mitrál en los últimos cinco años, durante los cuales este procedimiento ha sido rutina en el Departamento de Investigación Quirúrgica de la Universidad de Guadalajara y sus instituciones afiliadas, el Hospital Civil, el Hospital del Seguro Social y Hospital del Ferrocarril Sud Pacífico. Tambien se incluyen casos tratados en el Hospital Santa Margarita.

Desde Agosto de 1952 hasta el presente, hemos practicado más de 400 comisurotomías. Reportamos aqui 350 de estos casos, los restantes siendo demasiado recientes para permitir evaluación cientifica o no disponibles para observación adecuada de los resultados.

Posiblemente por las condiciones climáticas en las regiones montañosas y la altitud de muchas de sus ciudades, México tiene una alta incidencia de fiebre reumática. Mexico y Guadalajara pertenecen a esta zona de gran altura.

En nuestra región encontramos que aproximadamente un 80 per cent de las víctimas de fiebre reumática desarrollan endocarditis y el 80 por ciento aproximadamente de los enfermos con endocarditis desarrollan estenosis mitrál aún en esta era de antibioticos. Esto significa que 60 por ciento de los enformos de fiebre reumatica son potencialmente candidatos para la comisurotomía.

En este grupo de enfermos comisurotomizados es interesante notar que 90 por ciento son nacidos y criados en zonas altas y húmedas, mientras que solo 10 per cent son de las zonas áridas como la costa occidental de Mexico que en la parte norte presenta el litoral mas seco. (Fig. 1).

La gran mayoria de nuestros enfermos han sido del grupo economicamente pobre con nutrición deficiente y ambiente poco higiénico. La incidencia de amigdalitis es más alto que en otros grupos. En muchos de nuestros enfermos el estado general era tan pobre que fué necesario someterlos a una preparación especial preoperativa. (Fig. 2).

La edad mínima fue 14 años, la maxima 58 años. El mayor número fue dentro del grupo de 22 a 30 años. Las mujeres formaron el 70 por ciento de los casos. (Fig. 3).

Es indiscutible que el mejór conocimiento de la fisiología y fisiopatología cardiorespiratoria ha sido el factor decisivo en la mejoría de los resultados que ahora se obtienen en el tratamiento de esta enfermedad. El mejor entendimiento del mecanismo de la válvula mitrál por el cirujano moderno es otro factor contribuyente.



Figure 1

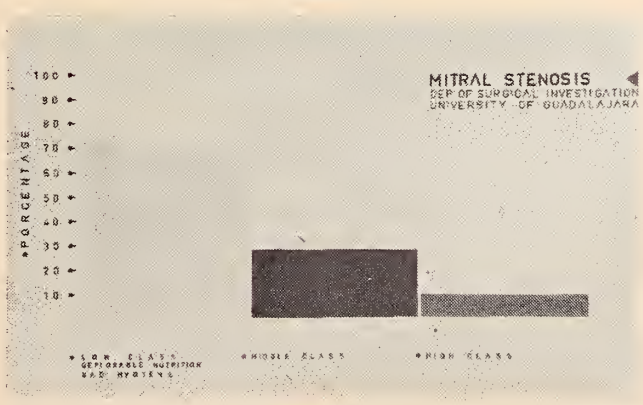


Figure 2

Trabajo presentado en el Congreso Seccionario, American College of Surgeons. Phoenix, Arizona, Diciembre 1957.

Deseamos expresar nuestro aprecio a la Senora Lorraine Small de Chavez por su estimable asistencia tecnica en este trabajo.

Nosotros hemos practicado estudios hemodinámicos en un grupo de enfermos y consideramos que la cateterización ha aumentado nuestros conocimientos en los enfermos hospitalizados. Aunque en cierto numero de enfermos la cateterización no es necesaria, en una institucíon universitaria este procedimiento es de importancia. Como resultado de estos estudios hemos descubierto que las presiones precapilarias son las mas similares a la resistencia actual en la region arterio-pulmonar, como se demuestra en esta grafica. (Fig. 4).

En un grupo de 90 enfermos sometidos a este estudio preoperativo encontramos que la presion de la arteria pulmonar tiene una oscilación sistólica entre 40 y 100 mm de Hg. Esto correspondería en la region precapilar, a una oscilación entre 10 y 30 mm de Hg. (Fig. 5).

Es sabido que la resistencia proteínica del protoplasma endotelial es aproximadamente 30 mm de Hg. Mas arriba de esto el peligro de edema pulmonar agudo es inminente. Sin embargo es importante señalar que hay enfermos en quienes esta figura ha sido sobrepasada y quienes no desarrollaron edema pulmonar. Citamos como ejemplo, un enfermo de 48 años de edad quien ha padecido de estenosis mitrál desde la edad de 12 años y ha desarrollado gran cardiomegalia con presion precapilar de 85 mm de Hg. Este enfermo es ambulante. (Fig. 6). La Explicación de este fenómeno bien puede ser el desarrollo de una hipertrofia defensiva del endotelio capilar, que impide el paso del liquido al alveolo pulmonar. Creemos, sin embargo que el numero de casos en que esto occurre es extremadamente raro.

También hemos encontrado en estos estudios hemodinamicos que no siempre hay una relación directa entre el aumento de presión en la arteria pulmonar y el grado de estenosis. En casos considerados estenóticos hemos algunas veces encontrado una marcada insuficiencia de la valvula mitral con gran hipertensión pulmonar. También hemos encontrado que la disnea mas o menos severa en el enfermo con estenosis no siempre corresponde con una marcada hipertension pulmonar. En terminos generales sin embargo, cuando estos dos manifestaciones se entudian y se catalogan con el aspecto clinico del caso pueden ser de gran significación.

Los hallazgos dinámicos post operativos en un pequeño grupo de enfermos no manifestan cambios apreciables en el curso de los primeros meses apesar de que clinicamente hay mejoria. La disminución de la presión pulmonar se ha observado despues del sexto mes. Es necesario mencionar aqui que esta disminución de la presión en algunos casos no ha sucedido hasta despues de un año aunque el cuadro clínico ha demostrado gran mejoría.

Nosotros creemos que aparte del estado específico de la válvula, lo mas importante se el estado del tegido conjuntivo pulmonar y el de la fibra muscular cardiaca. Creemos que no se

AGE AND SEX.

MINIMAL AGE.....	14 YEARS OLD
MAXIMAL AGE.....	58 YEARS OLD
GREATEST NUMBER OF CASES.....	22 TO 30 YEARS
FEMENINE SEX.....	70 %
MASCULINE SEX.....	30 %

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Figure 3

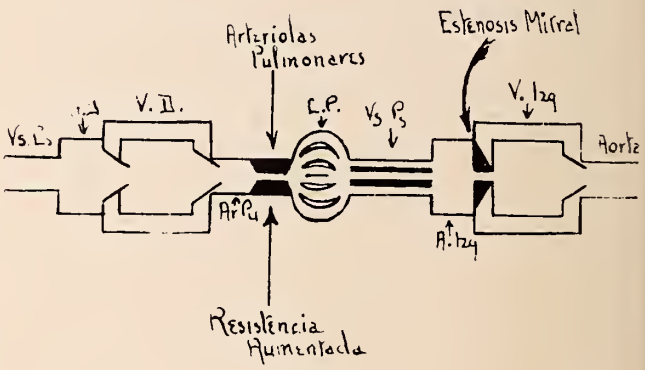


Figure 4

SYSTOLIC PRESSURE IN PULM. ARTERY

				No. of cases.
FROM	40 TO 50	m.m.	Hg.....	7
"	51 " 60	" "	"	21
"	61 " 70	" "	"	37
"	71 " 80	" "	"	15
"	81 " 90	" "	"	9
"	91 " 100	" "	"	1
			TOTAL	90

Figure 5

logra nada en enfermos que demuestran alteraciones irreversibles de una o ambas condiciones pues se inclinan a empeorarse con el tiempo o después de la cirugia. (Fig. 7).

Sabemos que con un grupo de enfermos el pronóstico es facil y aún obvio. En otros es dificultoso si no imposible. El aspecto clínico, las radiografías, electroardiograma y estudios hemodinámicos ayuddn a resolver parcialmente los problemas de algunos casos.

Debido al factor pulmonar los estudios hemodinámicos demuestran elevacion precapilar. El electroardiograma es una excelente ayuda en la demostracion del estado del miocardio. (Fig. 8, 9, 10, y 11).

SELECCION Y AGRUPAMIENTO

Nuestros casos han sido agrupados de acuerdo con la clasificación de la American Heart Association.

La mayoría de los casos pertenecen a los groups II y III, solo dos en el groupo IV y ninguno en el grupo I.

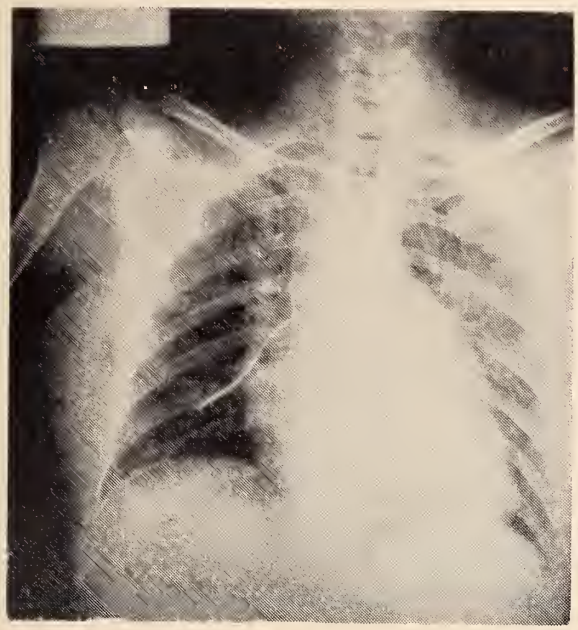


Figure 6

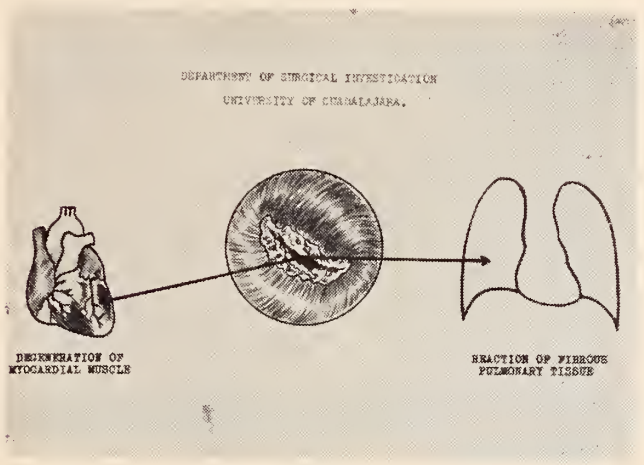


Figure 7

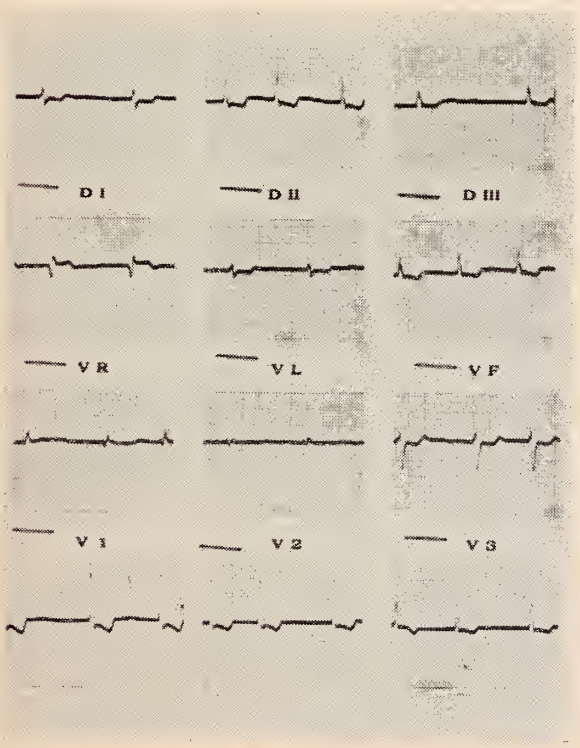


Figure 8

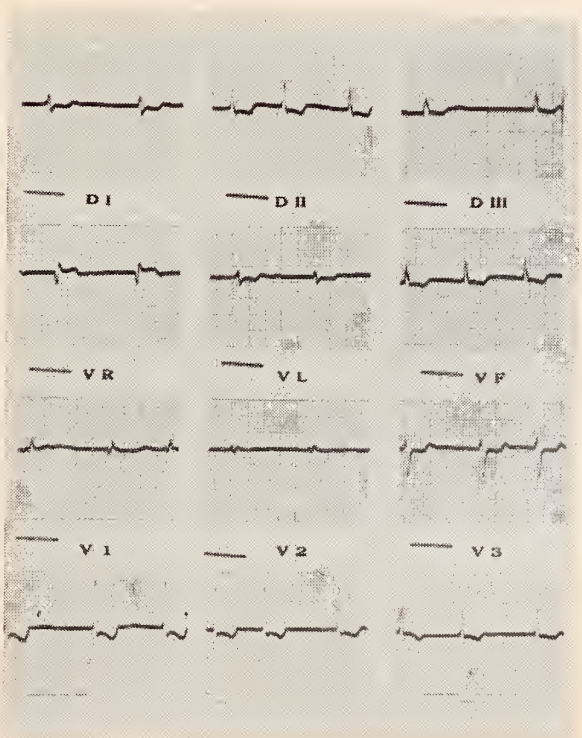


Figure 9

Agrupación de casos
(American Heart Association)

Grupo I	0
Grupo II	280
Grupo III	68
Grupo IV	2
Total	350

Es conveniente señalar que con frecuencia fue dificil hacer una distinción clara y exacta entre los grupos II y III.

RESULTADOS

Mortalidád. La mortalidád en este grupo de 350 enfermos fue la siguiente:

Durante la operación	1	(0.2%)
Post operativos	1	(2.5%)
Mas tarde	12	(3.4%)
Total	22	6.1%

Segun los grupos el mayor porcentage de mortalidád fué el grupo IV. Solo hemos visto dos casos en este grupo uno de los cuales murió. En los 9 casos de muerte postoperativa, 4 fueron debidos a trombosis; de estos 3 manifestaban fibrilación auricular y dos tenían antecedente tromboembólicos. Entre las muertes tardivas 2 fueron debidas a embolismo, uno 3 meses después de la operación y el otro 6 meses después. El resto fueron debidos a insuficiencia cardiaca y en un caso la muerte fue debida a insuficiencia valvular.

Resultados Clínicos:

Le los 328 casos super vivientes 218 (60.4%) han demostrado resultados satisfactorios hasta el presente. Estos enfermos han vuelto a actividad casi normal, evitando los excesos. Nuestro primer caso fue operado hace cinco años y esta trabajando. Algunos de estos enfermos han vuelto a trabajar, aunque algunos han tenido que buscar empleo menos laborioso que los que tenían antes de la comisurotomía.

Es importante señalar que la mayoría de nuestros casos operativos han sido mujeres. Cuando mencionamos el retorno a actividades normales despues de la cirugía esto necesariamente no quiere decir retorno a labores duros, fisicos o mentales como bien que en nuestra sociedad la mayoria de las mujeres no se emplean fuera de la casa.

28 (8%) de estos casos no han demostrado ninguna mejoría clinica despues de la operación y 8 casos han demostrado emperoamiento definitivo. Dos casos han desarrollado re-estenosis mitrál y están al presente hospitalizados para repetir la comisurotomía.

RESULTADOS CLINICOS

		por ciento
Satisfactorio	218	60.4
Bueno	74	22.05
Regular	28	8.5
Ninguno o malo	8	2.3

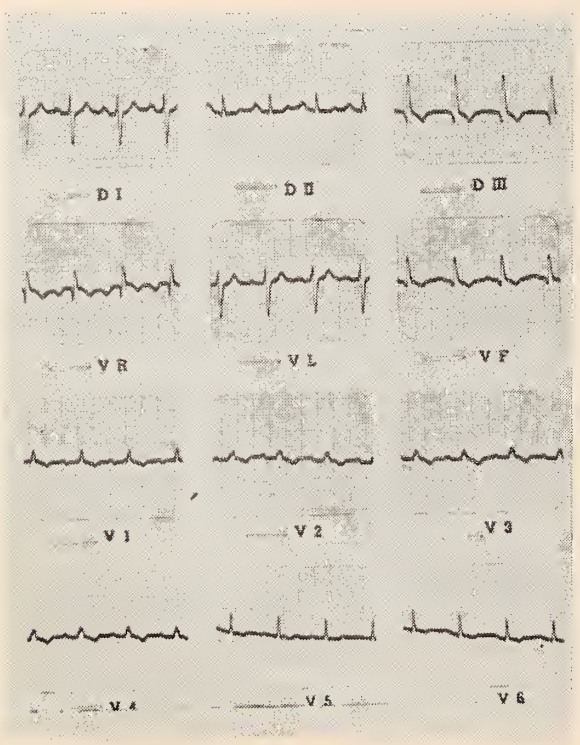


Figure 10

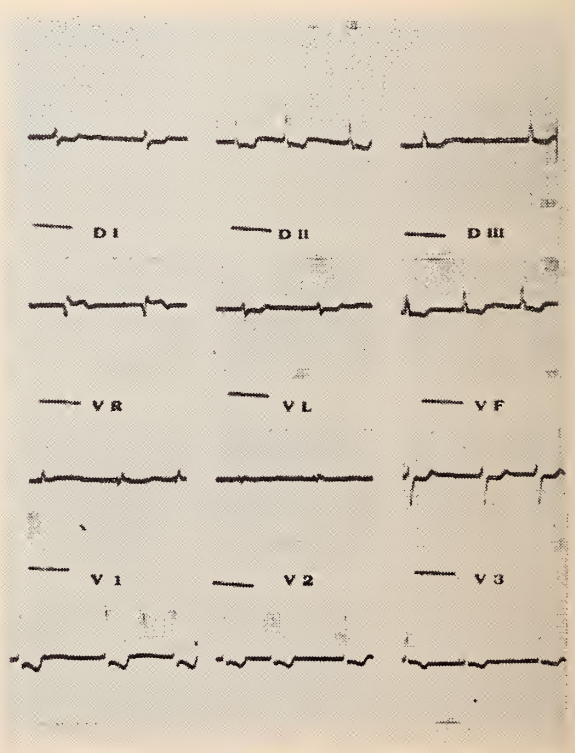


Figure 11

Es de interés observar que mucho de los casos en los últimos dos grupos demonstraron sospecha de daño pulmonar o miocardio clinicamente, en el electrocardiograma o estudios hemodinámicos antes de la operación.

Entre todos los grupos de nuestros casos quirúrgicos hubo 12 mujeres en estado de gestación. Estas fueron sometidas a la cirugía desde el primer al septimo mes de gestación. La indicación quirúrgica en todos los casos fue insuficiencia cardiaca con algun grado de edema pulmonar. Tres de estos casos, operados durante el sexto y septimo mes de gestación no demostraron mejoría en el control de la insuficiencia cardiac por medidas medicas y existió un grado considerable de hemoptisis. La indicacion quirúrgica principal fue la recurrencia de insuficiencia cardiaca.

No hubo mortalidad en este grupo de mujeres gestantes. En ún caso hubo solamente una mejoria parcial despues de la operación. Esta enferma, en 3 meses de gestación al tiempo de la cirugía tuvo un parto normal. Otras 10 enfermas llegaron a termino. Una espera pronto. Con excepcion de la citada anteriormente, todas estas enfermas han demostrado resultados post-operativos satisfactorios. Ocho fueron clasificadas en el Grupo II y 4 en el Grupo III.

Uno de los casos en el Grupo II fue un enfermo de 28 años que padecía de la enfermedad de Hansen. Este enfermo desarrollo estenosis mitral y fue sometido a la comisurotomia. No habia historia de fiebre reumatica. Habia estado en el Instituto de Dermatologia de la Universidad de Guadalajara bajo tratamiento de lepra lepromatosa durante dos años. Poco después de ser controlada su enfermedad comenzó a sufrir de disnea. Fue transferido a nuestro servicio donde por medio de los estudios electrocardiograficos y hemodinamicos se confirmo nuestro diagnostico elinico de estenosis mitral el enfermo fue operado el 10 de Septiembre de 1955. Se hallo una estenosis de ¼ cm.^{2} en area sin insuficiencia. Las comisuras anterior y posterior fueron ampliarmente abiertas. Este enfermo hizo un post-operativo muy bueno y al presente trabaja como campesino.

El examen histologico del apéndice auricular extirpado no demostró nódulos de Ashof's ni hubo manifestaciones características dc lesiones reumatica. No se hallaron nódulos lepromatosos pero si se encontró evidencia similares a lesiones leprosas de la piel que han sido tratadas medicamente. (Fig. 12 y 13).

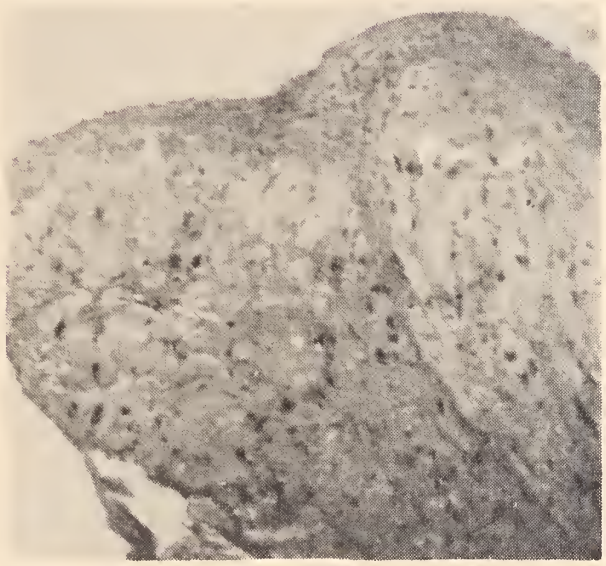


Figure 12



Figure 13

SUMARIO

La comisurotomía mitrál ha sido establecida definitivamente como el tratamiento mas efectivo de la estenosis mitrál.

Los mejores resultados han sido obtenidos en los casos en el Grupo II segun se observa en este reporte.

Es importante poner énfasis en el hecho que la condición del músculo cardiaco, del tejido fibroso pulmonar y la válvula misma son factores sumamente importantes para una prognosis favorable del tratamiento quirúrgico.

Nuestras estadísticas estan basadas en 350 casos quirúrgicos desde Noviembre 1952 a Noviembre 1957.

RADIATION THERAPY IN OPERABLE CARCINOMA OF THE CORPUS UTERI*

By James F. Nolan, M.D.
Los Angeles, Calif.

ONE OF THE most controversial issues in the management of patients with carcinoma of the corpus uteri rests in the efficacy of preoperative radiation therapy. This question has been argued for many years and probably will continue to be a point of controversy for some time to come. Whether or not patients who are operable in both the technical sense and the constitutional sense should receive preoperative radiation therapy could be answered only by the evaluation of results of a controlled human experiment. Such an experiment would necessitate the random choice of patients for preoperative radiation or for immediate hysterectomy, and each group of patients would have to contain fairly large numbers. They would have to be treated by the same operators during a short time span so that variations in technique, anesthesia, and supportive care would be minimized. And, finally, they would have to remain under careful follow-up control by the same observers for a long period of time. Such an experiment has not been carried out or, as yet, is not reported. So, in the absence of definitive information, the argument remains on a highly editorial plane, influenced by the specific experience of each observer.

Pros and Cons

The protagonists of immediate hysterectomy point to the dangers of preoperative radium implantation from manipulation itself, as well as from radiation reactions on normal tissues, as a distinct disadvantage to that procedure. They point to the time wastage before definitive hysterectomy can be performed as being disadvantageous. Moreover, the economic question has been raised in that the double modalities of treatment are more expensive for the patient. They insist that none of these disadvantages are offset by any appreciable increase in salvage rate over hysterectomy alone.(9, 10)

Those who advocate preoperative radiation admit that the procedure is not without risk and should be carried out with technical care from both an operative and a radiologic point of view. They do not consider the time lapse to be of any great importance in that, while it is necessary to allow time for the advantageous regression of the tumor and the orderly reaction in tissues of the tumor bed to take place, the subsequent surgery is frequently made technically easier. Of course, the economic question as to the worth of the procedure can be answered only in terms of increased patient salvage, and the protagonists of preoperative radiation believe this to be adequately compensated.(2, 16)

It seems odd that these diametrically opposed points of view should continue to be held for so many years, despite the lack of controlled human experiment. One would think that accumulated clinical experience should eventually answer the question. This not being the case, however, it seems worthwhile to review these arguments once more in an effort to gain a clearer concept of the problems involved.

The first point to consider is the fact of the relative rarity of the disease. In the past it was considered more rare than it is today, being reported to occur in a ratio of one to eight or one to 10 for each cancer of the cervix. Recently, carcinoma of the corpus uteri is reported as one to 2.0 or one to 2.5 for each carcinoma of the cervix uteri.(17) The recent State of California statistics show 468 cases of uterine carcinoma as compared to 1,046 cases of cancer of the cervix, and 368 cases of cancer of the ovary for the year 1955. Parenthetically, this increasing incidence is not a point at issue, but it may be related to the increasing longevity of the female population as a whole, to improved differential diagnosis between cancer of the cervix and cancer of the corpus, or to improved reporting of statistics. If this apparent increase be real, the methods of management of patients suffering from the disease become more important.

Question of Time

However, the relative rarity of carcinoma of the corpus still allows for a slow accumulation of experience for any single observer and the time span over which cancer patients must be observed is relatively long. The assessment of results of treatment thus becomes difficult for

*From the Los Angeles Tumor Institute

any individual. This is illustrated by the data from the California Hospital in Los Angeles. During the years 1948 to 1955, 116 hysterectomies were performed for carcinoma of the uterine corpus. Of these, 50 per cent were performed by operators who did but one operation of this type during the period.(11) A single good or bad result would completely dominate the clinical opinion of any of these operators.

The necessity for prolonged follow-up is illustrated by the accumulated per cent survival in the patients treated primarily by radiation therapy with or without hysterectomy at the Los Angeles Tumor Institute.(5) Here, the survival curve drops rapidly to five years but continues to fall appreciably. The numbers of patients at risk for the longer time periods become successively fewer. Slight differences in individual results can become manifest as wide percentile changes in any group containing small numbers. Therefore, one cannot assume that immediate regression of tumor will be translated into long-term control.

International Statistical Study

To overcome such difficulties, a study of collected statistics is being carried out on an international basis. These annual reports from Stockholm are collected from material submitted concerning the treatment of carcinoma of the uterus from clinics throughout the world, but only recently have they included results in the treatment of carcinoma of the corpus.(1) Even with this type of collection one cannot discern much information concerning the results in the combined treatment of operable cases.

One does see that, according to the classification used, 50 per cent of the patients are considered operable in terms of complete hysterectomy. Thirty-five per cent are inoperable because of the constitutional condition of the patient, and the remainder are inoperable because of the gross advancement of the tumor. Of the operable patients, a comparison of results between groups favoring primary hysterectomy and those favoring primary radiation therapy shows little difference. One can never be sure that there be no selection of patients for the group treated by hysterectomy alone in such a compilation, so drawing a conclusion by such a comparison is hazardous.

Some years ago a collection of the results of patients subjected to hysterectomy for this disease, with and without preoperative radiation, was made.(12) These operations were performed during a short time period in the same hospital by various operators, and their selection was governed merely by the opinion of the surgeon. In this group the absolute results in per cent survival were superior for the preoperative radiation group, but when the patients lost to follow-up were excluded there was no appreciable difference. However, a comparison of the two groups on the basis of age, histologic grade of tumor, and size of the uterus showed the hysterectomy alone group to contain the superior clinical material from a prognostic point of view.

A similar study of a larger group of patients carried out somewhat later was designed to explore this type of patient selection.(11) When comparisons were made on a series of patients who had tumors of low histologic grade in small uteri, the results were essentially the same whether they were treated by surgery alone, radiation alone, or combined treatment. In the series of patients who exhibited poor prognostic signs, such as high histologic grade of tumor or an enlarged uterus, the results of treatment by radiation alone were poor when compared to surgery alone, but those from the combined treatment were appreciably superior to those from either modality used alone.

Similar studies by other groups have indicated the same tendencies.(3, 19) It is quite probable that a simple method of treatment may be adequate for small lesions of low histologic grade. However, since results of treatment have seldom been reported on such a basis and have referred only to the methods of therapy utilized, it is difficult to tell in the usual reports of treatment results how much such a selection of patients may have weighted them. An example of this is the preponderance of small uteri in the operative series.

Other Problems

There are other problems associated with the assessment of reported results and one of them lies in the preoperative radiation technique used. About fifteen years ago the late Dr. James Heyman, of the Radiumhemmet, described his multiple packing technique for radium implantation.(6) He found this to be vastly superior to the previously used tandem implantation in patients treated by radiation alone. Studies of

the radiation distribution around normal, enlarged, and irregular uteri so packed indicated this to be superior to tandem placement from a purely physical point of view.(14, 15) In studies of patients treated primarily by radiation therapy, this superiority in radiation distribution can be translated into increased dosage to the periphery of the uterus and superior clinical results.(5) Studies of uteri removed after such implantation indicated superior results on the basis of more frequent destruction of tumor histologically.(13) This has been carried further to show superior clinical results in patients who have had the combined treatment and who demonstrated complete eradication of the tumor in the removed uterus.(4) Arneson has correlated this finding of "tumor control" as having definite prognostic significance.

It may be that patients who have tumors which can be destroyed by preoperative radiation would exhibit a good result with any method of treatment. However, it seems logical that when one is applying preoperative radium this should be done with the most effective technique available (and not in a "more or less routine fashion," as is frequently the case). It is natural that comparison of results of patients ineffectually treated by simple tandem application as a preoperative measure to those treated by hysterectomy alone will show little in differential superiority.

External Radiation vs. Internal Radium

To carry this discussion of radium technique further, it should be noted that Heyman originally described the use of intravaginal application of radium in conjunction with the intrauterine packing. Most techniques, even for preoperative radiation, do include radium sources in the cervix and vaginal fornices to destroy imperceptible tumor emboli in lymphatics, which may become manifest as retrograde suburethral metastases. Rutledge has recently described a lucite applicator for the irradiation of the entire vaginal vault as well as the fornices.(18) He has indicated that such treatment has reduced the occurrence of vaginal vault recurrences after hysterectomy and has reaffirmed the necessity of this phase of the treatment.

The use of external radiation as the source of preoperative treatment has not been as common as intrauterine radium.(8) Theoretically, the object of the preoperative radiation is to destroy the tumor, if possible, but at least to render it incapable of transplantation at the time of operation. Further, there is a reaction on the part of the tissues of the tumor bed following radiation, which will inhibit a "take" of transplanted tumor even if it be viable. Furthermore, an adenocarcinoma, in contradistinction to epidermoid carcinoma, may respond more successfully to an intense trauma from radiation, in terms of dose-time relationship, than it does to an equivalent dose protracted over a longer period of time. And, in addition, many of the patients suffering from this disease are obese, which makes the technique of external radiation therapy more difficult. These factors lead one to believe that intracavitary radium implantation would be superior generally to protracted radiation to a large volume of tissue from external measures. However, we have had one patient in our experience who has been treated with 4,500 r to the midpelvis in twenty-five treatment days by two-million volt rotation technique, who did show complete eradication of the tumor at the time of hysterectomy four weeks later.

As far as improvements in operative technique are concerned, most patients are treated by complete abdominal hysterectomy and bilateral salpingo-oophorectomy. It has been advocated by McKelvey that a greater salvage of patients in over-all terms will be gained by subjecting as many patients with this disease to this procedure as possible. This is accomplished by modifying the criteria of inoperability to reduce the number included in the constitutionally inoperable group. In recent years, advances in anesthesia and supportive care have made fair risks of patients suffering from diabetes, hypertension, and obesity. Age is seldom a contraindication for operation.

Extending the Operation

Some studies have been made as to the efficacy of extending the operation to radical hysterectomy with pelvic node dissection.(7) The iliac nodes have been found to be involved more often than previously realized, but the possibility of spread to the para-aortic and pararenal nodes through the infundibulopelvic lymph routes is much more prominent here than in carcinoma of the cervix. The addition of radical hysterectomy to intense radiation has caused an increase in grave urinary complica-

tions and seldom can be supported by the pelvic tissues. Most operators confine themselves to the TeLinde type of modification of the radical operation, advocated for carcinoma in situ of the cervix. This does not disturb the ureters completely but does allow for removal of the tissue immediately medial to them as well as a wide vaginal cuff. Lymph nodes are inspected and biopsied but seldom is a complete lymphadenectomy performed. Usually the cervix is packed and sutured before celiotomy and the tubes ligated before clamping of the uterus to avoid spread through manipulation.

Although such refinements in technique as these are logical and will presumably reduce the number of patients who fail of treatment, clinical reports are seldom made on the basis of variations in surgery techniques. This makes comparison of results between groups treated by preoperative radiation and surgery alone again more difficult to evaluate, especially if the patients represent a combination of the experience of several operators, or if the procedures have been performed over a long time span.

In summary, it must be stated again that the question of the efficacy of preoperative radiation in the treatment of carcinoma of the uterine corpus is far from answered. This choice will continue to be made quite properly by the physician in whom the patient's care is to be entrusted. It is probable that some selection of patients can be made and the theoretical advantages and disadvantages of each technique can be weighed on the basis of prognostic factors. As in any such problem, the treatment applied cannot be justified for its own sake. However, the responsible physician must apply a planned treatment program with technical care, which necessitates the accumulation of as much information concerning each individual as is possible. Ultimately a definitive answer to the controversy is not as important as this assumption of full responsibility for the outcome of treatment by the physician who applies it.

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CANDIDAL VULVOVAGINITIS TREATMENT WITH A NEW NON-STAINING, NON-MESSY GENTIAN VIOLET*

By Karl John Karnaky, B.A., M.D.
Houston, Texas

VAGINAL and vulva mycosis incidence is increasing rapidly. One of the main contributing factors to the rapid increase is the widespread use of broad-spectrum antibiotics. Lee and Kiefer reported a reversal in the old ratio of four Trichomonal Vaginitis to one Candidal Vaginitis. They now report three Candidal Vaginitis to one Trichomonal Vaginitis. Pace and Shantz suggested a 7:1 ratio of Candidal to Trichomonal Vaginitis in non-pregnant patients and 15:1 ratio during pregnancy. Pace and Shantz consider Candidal Vaginitis of much more clinical significance than Trichomonal Vaginitis. It might be hard to get very many physicians, who treat Trichomonal Vaginitis during pregnancy, to agree with Pace and Shantz; especially, since the introduction of the new stainless non-messy gentian violet, which only requires one treatment for most vaginal Candidal infections.

Another reason for an increase in vaginal Candidiasis, in this investigator's opinion, is that many physicians had stopped using the almost specific medication, gentian violet and substituted glucose containing tablets and powders in gentian violet's place.

In Kayser's series, the use of anti-fungal antibiotics (mycostatin) failed to lower the incidence as 10 out of 20 women cultured after the treatment still had Candida albicans present.

Hesseltine and Beckette(1) estimate conservatively that 25 per cent of all gravid women harbor Candida albicans in the vagina with a fair percentage of these developing mycosis. Gardner(2) found *Candida albicans* in 11.5 per cent of 858 obstetric patients, and Karnaky reported its presence in 15.5 per cent of 2,000 pregnant women on whom routine smears were conducted. In contrast, Gardner observed the organism in only 2.85 per cent of 491 non-pregnant patients, and Karnaky reported an incidence of 3.5 per cent in a similar group.

Although vaginal mycosis is not an alarming problem in non-gravid patients, it is becoming more of a problem in the pregnant patient. The increase in vaginal acidity (increase in lactic acid) along with an increased carbohydrate, especially glycogen and glucose, fat, protein, enzymes, vitamins and trace element content, sets up an ideal condition for *Canida albicans* to invade.

The incidence of *Candida albicans* infections in the pregnant and non-pregnant female can be seen in Table 1. It can be seen that *Candida albicans* infections occur much more often in pregnant women.

TABLE 1.
INCIDENCE OF CANDIDA ALBICANS IN GRAVID AND NON-GRAVID PATIENTS

PATIENT	NUMBER	PERCENTAGE
GARDNER'S SERIES		
Pregnant	585	11.5
Non-pregnant	491	2.85
KARNAKY'S SERIES		
Pregnant	2,000	15.5
Non-pregnant	500	3.5

SIGNS AND SYMPTOMS

These patients frequently complain of itching and burning of the vagina, labia and the entire perineum, and especially on the inner aspect of the labia and in the creases between the labia and the thighs. Itching, which occurs more often at night after lying down, may or may not be accompanied by burning, a leucorrhea, local tenderness and soreness, irritation, dryness, dysparunia and dysuria, Figs. 1 and 2.

In those patients allergic to Candida albicans there was present an edematous hyperemic vagina and especially the vulva.

The leucorrhea during pregnancy usually consists of white clumps of vaginal epithelial cells which resemble clabbered milk. The amount of leucorrhea may be none, in which case the vagina will be dryer than normal; or it may be slight, in which case there is just enough leucorrhea to moisten the underclothes; or the leucorrhea may be profuse, even running down the patient's legs. Fig. 3.

In this investigator's opinion the amount of leucorrhea in a *Candida albicans* infection is regulated by this organism's ability to metabolize the "moist layer" covering the vaginal epithelial surfaces. *Candida albicans* and vaginal bacteria may utilize the secretion on the vaginal

*From the Obstetrical and Gynecological Research Institute, Houston, Texas, and from the practice of the author.

walls as a food, and so destroy the secretion so that there is little leucorrhea present; or these micro-organisms may grow extensively due to the lowering of the vaginal epithelium resistance producing a moderate or a profuse vaginal leucorrhea.

METHODS AND MATERIALS

The materials used to treat the patients herein reported was a new, stainless, adhering gentian violet (Trigentian). This drug was developed in the Obstetrical and Gynecological Research Institute at Houston, Texas.

The product, in a concentration of one per cent, is stainless, adhering and non-leaking, so it is non-messy. There was no itching or burning associated with therapy, and there were no strains of *Candida albicans* found to be resistant to these drugs. Plate sensitivity, on Sabouraud's agar, showed the drug to be as effective as ordinary gentian violet.

Ordinary gentian violet is 0.2 to 0.5 per cent and may produce a burning. The new stainless gentian violet is made up in a 1.0 to 6 per cent strength which does not burn or stain the clothes or the individual so that it can not be removed. One per cent destroys *Candida albicans* on contact and usually only requires one treatment by the physician. This new medication is made up as a tablet, powder, jelly and solution. It is about as specific as a medication can be and without any toxicity or side reactions.

DIAGNOSIS

In diagnosing *Candida albicans* infections, two cotton tip applicators are gently and slowly inserted deep into the vagina and rotated around several times; or a non-lubricated speculum is

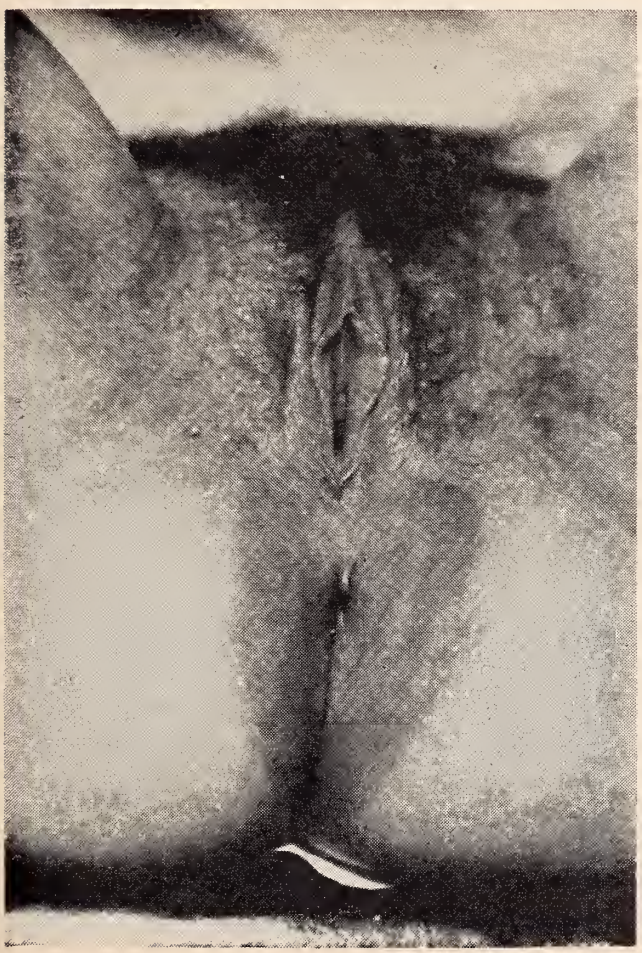


Figure 1. Candida albicans of the perineum but more extensive from the area of the introitus to the tip of the coccyx.



Figure 2. Showing Candida albicans involving the regions near the introtius. On the left side of the introitus near the fourchette are two breaks in the skin that causes itching and especially burning. Perspiration running into these broken skin areas causes severe burning.

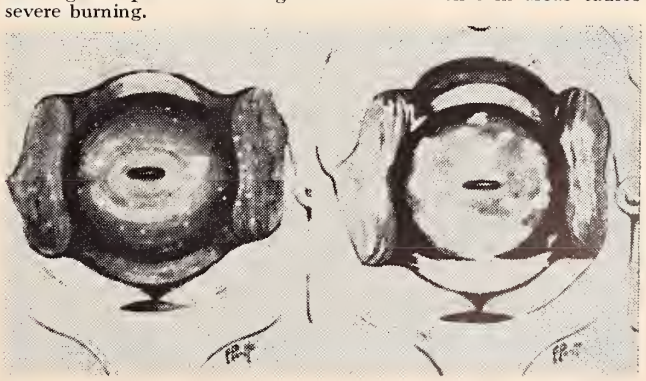


Figure 3 showing Candida albicans in the non-pregnant patient in the left photograph of a drawing and Candida albicans in the vagina of a pregnant patient. In the non-pregnant patients the lesion are more often small round white spots due to small amount of glycogen within the vaginal epithelial cells and large irregular shaped white areas in the vagina of pregnant women due to the large amount of glycogen within the vaginal epithelial cells. The large amount of moisture, the low pH, the thick vaginal epithelial layer favor the growth of this fungus.

gently and slowly inserted into the vagina and the vaginal secretion scraped from the vaginal walls. The secretion is smeared over the surface of Sabouraud's Dextrose or Nickerson's medium and a direct smear made on a clean plain glass slide.

The slide is examined for *Candida albicans, Trichomonas vaginalis* and *Hemophilus vaginalis*. The agar slant is examined for typical Candida colonies. Fig. 4.

TREATMENT

As soon as diagnosis is made, two applicators (5 grams per applicator) of this new stainless gentian violet is instilled deep into the posterior fornix of the vagina, followed by filling the rest of the vagina full of the new low pH powder. Fig. 5. The perineum, labia, and introitus are smeared with the new non-staining gentian violet using one end of a tongue depressor to spread the dye. The new low pH powder is also blown over and rubbed into the gentian violet on the outside. This keeps the dye from getting onto the underclothes.

Each patient is given a tube of the gentian violet and an applicator with instructions to instill the material daily, preferably upon retiring. If the physician wishes, he may insert 2 to 6 of the stainless gentian violet tablets in the vagina followed by filling the vagina with the new low pH powder.

The patients have been seen once or twice weekly. A culture and smear were made each time. The response was quicker and as efficient as that reported for ordinary gentian violet and anti-fungal antibiotic, except there was no staining of the pelvic region or clothes. Usually one treatment was necessary.

There was a very rapid response to the non-staining gentian violet and all itching and burning of the infected areas ceased immediately or as soon as the medication was applied. One author using mycostatin in Candidal vaginitis stated that most of the patients using mycostatin vaginal suppositories received relief from pruritus vulvi within 72 hours. Those who used the mycostatin ointment locally about the vulva in addition to the mycostatin vaginal suppositories usually obtained some relief immediately and complete relief in from 24 to 48 hours. With this new stronger stainless gentian violet, relief was

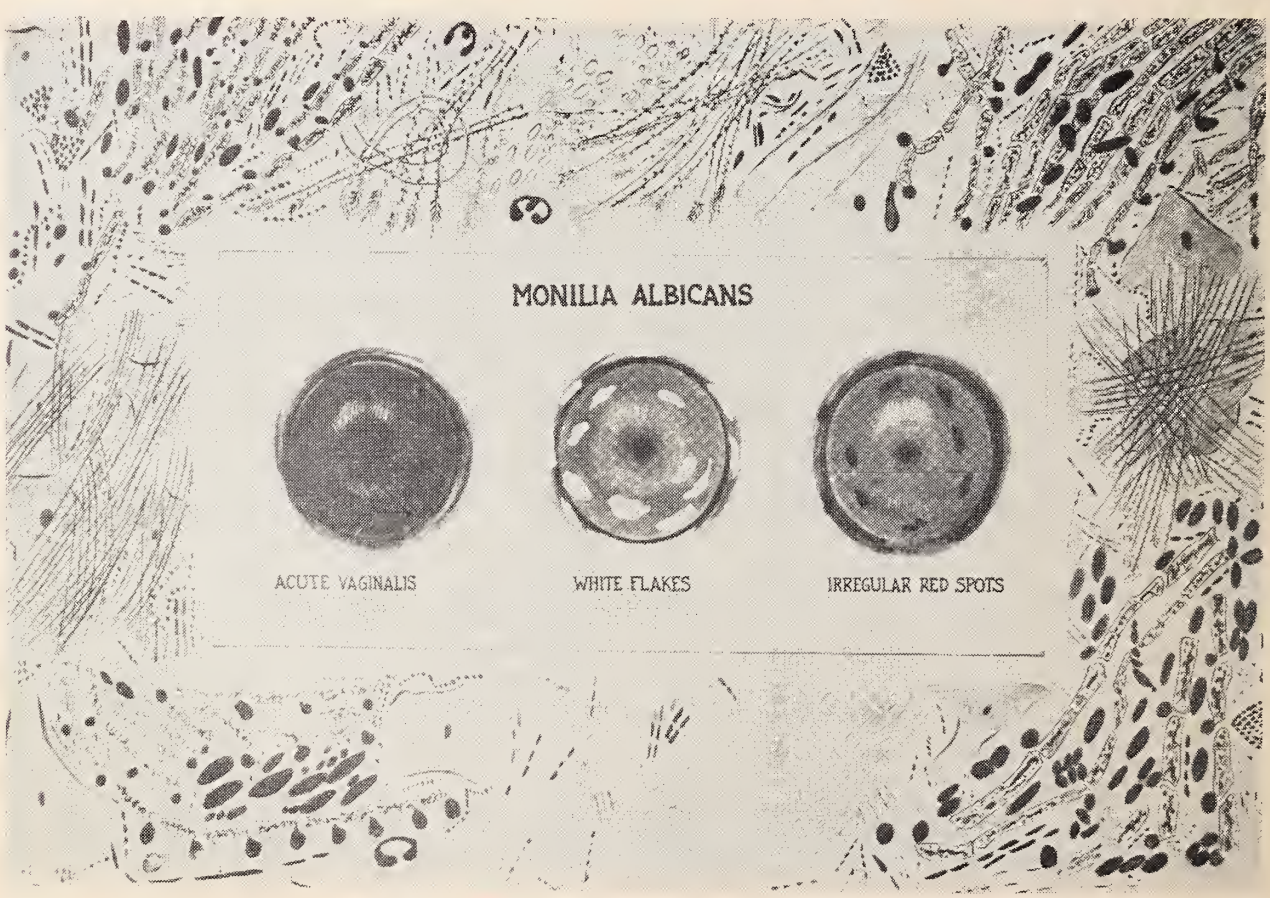


Figure 4. Shows the three forms of Monilia (Candida) albicans, the acute vaginitis, the white flakes, and the irregular red spot or areas form. Around the edges of this drawing are microscopic views of this fungus as seen under the low power of the microscope (top of drawing) and the fungus as seen under oil immersion and Gram stained (lower right hand corner).

immediate, not within 24 to 72 hours. It is possible that the treatment was successful because the patients co-operated when they found that the product would not permanently stain clothes as the older products did.

In the investigator's opinion, as a result of treating over 100 Candidal vulvovaginitis cases, that this new product is superior to any he has ever used.

SUMMARY

A new form of more concentrated gentian violet, which is non-staining and which adhers to the walls of the vagina, is reported. The product gives immediate relief from vulvovaginal mycosis. It is non-toxic and non-side reacting. Usually one treatment by the physician is all that is needed for the great majority of patients with vulvovaginal Candidiasis.

The product has a nice patient acceptance and in no case did the patient fail to use the material as directed.

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Figure 5. Shows the ball of cotton on an uterine dressing forcep held at the level of the introitus within the speculum as the speculum is withdrawn. The cotton ball wipes off any excess stainless gentian violet and Trimagill powder that may try to escape from the vagina, as the speculum is being removed. The stainless gentian violet and the new low pH powder (Trimagill) contains new vaginal adhesives that causes these medications to remain within the vagina. These adhesives eliminate the necessity of vaginal and introital packs and perineal pads during the treatment period. This eliminates the messiness of this vaginal medication. The stainless gentian violet is easily washed off of the body and out of clothes.

Editorial Page

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The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while heing thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have heen read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notifed within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
8. Illustrations — Ordinarily publication of 2 or 3 illustrations accompanying an article will he paid for hy Arizona Medicine. Any number beyond this will have to be paid for by the author.
9. Reprints — Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

SEMI-RETIRED PHYSICIANS

SOME MEMBERS of the Arizona Medical Association have voiced increasing concern about the influx of semi-retired physicians to our sunny climate. Many of these semi-retired physicians will not of economic necessity have to continue the practice of medicine, but do so only to keep their fingers in the pot. They will be able to hand pick their clients, as well as be most selective in the discharge of their community obligations.

There may be some of these semi-retired physicians, coming to Arizona, who will have passed the peak of their professional ability. There may be those who choose to capitalize on their past reputations which were gained during a more proficient period of their lives. The latter mode of operation has been called "ghost surgery in reverse." However, this applies to all branches of medicine, rather than just to surgery alone.

Anxiety is growing relative to the effect of the activities of the semi-retired physicians in two categories. The first category being that they will unnecessarily deprive the steady full time physicians of income, and secondly, that due to their possible waning abilities, the quality of medical care may be decreased. With the present favorable doctor-population ratio, it is apparent that for the present and near future we need not be too concerned about the supply of patients, thus, the effect on individual doctor's income is of little importance at this time.

The quality of medical care is and always has been of great import to our medical profession. We must continue to protect our people by maintaining the highest professional standards.

We, as individuals, and as organized medicine, should begin a study to determine whether or not the acts of these semi-retired physicians will improve or degrade the quality of medical care in Arizona. These facts should be thoroughly analyzed because an injustice may be done by false censor of the semi-retired physicians, or conversely, that the public may be submitted to an inferior standard of medical practice.

California and Florida have licensing laws which, to some degree, prevent semi-retired physicians from practicing in those states. If it is

found by an analytical survey that the laws of Arizona are permitting a lessening of the character of medical care, then, and only then, should steps be taken to change them. L.B.S.

THIRD PARTY MEDICARE

THE FIRST thing that I wish to emphasize is that third-party encroachment is not a problem of a few doctors, but will affect every physician in the United States in a short time. While at present its detriment may be felt by a few, its ultimate effects will reach everyone. All unions and industry will attempt their own closed panel medicine, and we will be confronted with socialized medicine on a scale beyond our comprehension. We must obliterate this threat now by an organized front: free choice of physician and hospital, plus the outlawing of physicians who participate in third-party medicine. This is not a problem of a few, but every physician with an ounce of principle must realize that this threat confronts him and will make inroads on his practice in the near future. Let us not wait until these threats are a reality, but nip them in the bud. Let us take the initiative to preserve the administration of physicians, dentists, nurses, and hospitals by the medical profession. Once these multimillion dollar organizations grasp these powers, they will be much more difficult to repossess. They can lure many of our naive or unprincipled men by the dollar sign, and can obtain political and professional support in this manner.

It is my belief that the medical profession is the noblest of the professions. However, if we wish to keep it that way, we will have to keep it out of the hands of men of the caliber of Anastasia, Beck, and Hoffa. If we are to keep the administration of hospital services and doctors in the hands of our profession and out of the clutches of industry and unions, we will have to have some organized effort. Many physicians have taken a lackadaisical viewpoint that, through some mystical power, it will all work out for the best. I had no belief in Chamberlin and his umbrella when they went to Munich.

We have learned from the dictators, labor unions, and industries that the only way to stop a bludgeoning combatant is to equal him in an organized fashion. Thus, we must educate our doctors as to just what is happening and, second, we must organize them. It is virtually impossible for a small county society to fight legal battles with a union whose income exceeds $150 million yearly, although some of the larger counties have been successful in such an effort. I call your attention to the very good article, "Union Boss Bows to Private Medicine," in the March 3, 1958, issue of Medical Economics. This article proves that it is possible, through a united effort, to have a union hospital run according to the doctrine of free choice of physician.

J. HUNTER SMITH, M.D.,
President,
Mingo County Medical Society,
Williamson, W. Va.

UNITED FUNDS AND VOLUNTARY HEALTH AGENCIES*

THE PAST few years have witnessed the development of an increasing controversy between the United Funds and the voluntary health agencies. At times the dispute has descended to levels neither mature nor dignified.

The genesis of the controversy is simple. United Funds have been created to put an end to multiple fund drives for worthy causes. The argument that one might contribute once — and be done with it — appears attractive, particularly to those whose knowledge of the functions of the organizations involved is limited.

These organizations fall into two principal categories. One group consists of local welfare agencies. The other is composed of national health agencies, among which are such highly respected bodies as the American Cancer Society, the American Heart Association, the National Tuberculosis Association and the National Foundation for Infantile Paralysis. These have contributed significantly to the health and medical welfare of the American people. All have state and local subdivisions.

It is worth while to examine the functions of the two groups of agencies. Both are devoted to meeting human needs and are therefore admirable. They have certain points of similarity but greater differences.

*Reprinted from California Medicine.

The local welfare organizations were established to care for the needy in their own communities. The needs of one community may vary from those of another and may include providing employment, food, shelter, clothing, transportation, medical and hospital care, recreation facilities and other services.

It may be laudable for a community group to survey the overall requirements for these strictly local services, to raise funds in appropriate amount and to distribute them on the basis of a generally acceptable formula. No valid objection to this procedure can be offered, and local welfare organizations wishing to become a part of United Funds should be free to do so.

The value of a particular local organization must be estimated at the community level. Worthy welfare programs deserve our support and when they are joined together in a common campaign for funds, we should assist in the project.

Different Situation

The situation with the voluntary health agencies is quite different. The primary purposes of these agencies are to support research, to conduct programs of public education and to assist in professional education. The service aspects of most agencies are limited and constitute a minor portion of their activities. The principal exception is the National Foundation for Infantile Paralysis. As important, however, as the service program of the foundation may be, it pales into significance when compared with the research which led to the development of the Salk vaccine.

The reduction of the death rate of tuberculosis can be attributed in part to the efforts of the tuberculosis association. It becomes progressively more apparent that the conquest of cancer and cardiovascular diseases will be accomplished through research into the causes of these conditions and into improved methods of prevention and treatment. Progress is being made in these fields, but much more remains to be done.

It is not easy to decide which research projects deserve support, even at the national level, where maximum information and the services of experts are available. This is much more difficult to accomplish at the state level and it is virtually impossible to do so realistically in the local community. National leadership is essential.

Public education is a prime function of the voluntary health agencies and is particularly important in the field of cancer. The annual crusade of the American Cancer Society in April does more to inform the public of the necessity of early diagnosis and early effective treatment than the year around educational activities of the society. Thousands of dedicated volunteer workers disseminate important information about cancer while soliciting contributions. The solicitation of funds and the education of the public are inextricably linked.

The individual voluntary health agency must be judged on the basis of its announced objectives, the effectiveness and fidelity it displays in pursuing those objectives and the soundness of its budget. A reasonable overhead and economy of operation are important items.

In some communities, great pressure has been exerted upon local branches of the health agencies to force them into United Funds. Coercive tactics, misrepresentation and subterfuge have been used. In certain instances, medical societies have been induced to set up local research foundations which they are ill equipped, from the standpoint of special skills, experience and facilities, to administer wisely.

This mechanism has been used to enable United Funds to receive donations in the names of diseases the voluntary health agencies were founded to combat. The freedom of the agencies to conduct their own campaigns has been curtailed.

Where long-time arrangements have existed between United Funds and health agencies involving participation of the agencies in campaigns of the United Funds, the experience usually has been unsatisfactory. Smaller sums have been raised for specific purposes than could have been achieved by the agencies alone. It must be recognized that local service demands tend to take precedence over broader programs. The end result has been less well financed research and injury to the public education endeavor.

At the recent hearings of the Shipman committee in Chicago, it was convincingly demonstrated that the United Community Funds and Councils of America (the national organization of United Funds) is determined to eliminate the fund-raising activities of the voluntary health agencies. It was further developed that donations designated for specific purposes will be

accepted by United Funds temporarily, but ultimately the donor probably will be deprived of the right to have his gift allocated according to his desires.

Catastrophic Loss

We commend the voluntary health agencies for their refusal to accept money from the United Funds and for directing their state and local units to do likewise. Should the efforts of the United Funds and Councils succeed, the destruction of the voluntary health agencies will be inevitable. These agencies have a record of accomplishment and are rendering constructive service to the American people. Their loss would be a catastrophe.

We, as members of the medical profession, recognize the value of the voluntary health agencies. We also dislike and resent coercion — whether it be by government or by others who arrogate decision as to the course we should follow.

To remain effective, the voluntary health agencies must maintain their independence and retain their identities. It is vital that they not be dominated by other influences or be submerged in larger organizations.

The medical profession probably represents the most potent body of informed opinion in this controversy. We are convinced that the voluntary health agencies are performing a valuable service. We must not permit ourselves to destroy them. The loss of these bodies would be an open invitation to government to step into the void thus created. Governmental agencies have a place in the financing of research, but to surrender the field to them completely would be to court disaster.

BOOK REVIEW

50 Years of Neuro-Surgery, A Personal Story

By Ernest Sachs, M.D.

THIS IS AN interesting book by Dr. Sachs. It will prove particularly so to those medics who had him during the trying Thursday morning surgical sessions. They will find the man presented here considerably mellowed over the "firebrand of the snake pit."

It does present a vivid picture of the pioneering days in the development of neurological surgery. Interesting sidelights are cast upon such individuals as Sir Victor Horsley, Sir William Osler, and Dr. Harvey Cushing. It shows the tremendous influence that the John Hopkins School of Medicine had upon the development of medicine throughout our country, not only today, but particularly in the early days of this century.

Dr. Sachs was the first full professor of neurological surgery in the world. He served 11 years as the secretary of the Society of Neurological Surgeons, having been active in the formation of this group with Dr. Cushing.

There is a vigor that runs throughout this book that was so characteristic of Dr. Sachs's service at Barnes Hospital. There is frankness, with restraint.

It is highly recommended to you for a vivid insight into the development of one of our surgical specialties.

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OBITUARY

WILLIAM MAGILL SCHULTZ, M.D., F.A.C.P.

DR. WILLIAM MAGILL SCHULTZ, F.A.C.P., Tucson, Ariz., died on Nov. 16, 1957, of coronary occlusion at the age of 79. Dr. Schultz came from a long line of doctors, his father and grandfather before him having practiced in Danville, Pa. He was educated at the Hill School in Pottstown, Pa., and graduated from Princeton in 1899. Following this, he graduated from the University of Pennsylvania Medical School in 1905 and subsequently served as resident intern in Pennsylvania Hospital for two years.

He went to China as a medical missionary in 1909 where he remained as a teacher of medicine until 1916 in the Shantung Christian University. He also acted as dean of the medical school for a time. Dr. Schultz came to Tucson in 1919 and was affiliated with the Tucson Clinic from 1926 until his retirement in 1950. He was a past president of the Pima County Medical Society, and past president of St. Mary's Hospital Staff. His interest was largely in chest diseases and he was a member of the National Tuberculosis Association. He was elected to Fellowship in the American College of Physicians in 1931, and was a member of the national, state, and county medical societies.

He is survived by his wife, Emma Carter Schultz, and a son, Dr. Norman C. Schultz, of Long Beach, Calif., and three grandchildren.

Dr. Schultz was of the old school. He had a sincere interest in the practice of medicine and in medical education. He was revered by all his associates as truly a gentleman and a scholar.

W.R.H.

Topics of Current Medical Interest

REPORT OF COUNCIL MEETING JUNE 8, 1958

THE ARIZONA Medical Association Council met at the Westward Ho in Phoenix at 10 a.m., Sunday, June 8, 1958. New members of the council present were Drs. Running, Stapley and Young. Vice President Beaton was elected new chairman of council and presided at the meeting.

Minutes of the previous council meeting were revised and correction was made in regard to the disposition of a letter from the pathologists requesting that all medical services for Blue Cross-Blue Shield patients be paid for by Blue Shield. It was directed that this letter be sent for study to the professional board of the association before final action by council.

President Manning, with the suggestion, concurrence and, at times, recommendations for change by council, appointed members to the following boards and committees for 1958: Grievance, History and Obituaries, Industrial Relations, Legislation, Medical Defense, Medical Economics, Publishing, Scientific Assembly, Professional Board, Public Relations Board, Air Pollution Committee, Arizona AMEF Committee, Benevolent and Loan Fund, Blood Bank, Central Office Advisory Committee, Civil Defense, Constitution and By-Laws, Doctor's Retirement and Investment Committee, Fee and Contractual Medicine Committee, Insurance Planning Committee, Legal Services, Medical School, Medicare Adjudication, Medicare, Medicolegal, Joint Committee on Improvement of Nursing Services, Osteopathy Liaison, Ad Hoc Poisoning Control, Procurement and Assignment, Professional Liability Insurance Investigating, Professional Liaison, Safety, School Health Coordinating, and Advisory Committee to the Women's Auxiliary.

Other Business

The treasurer reported that at the 1958 annual meeting a net profit of $201.88 was realized. The meeting for 1959 was tentatively scheduled for Westward Ho Hotel.* It was determined that one day of the meeting would be devoted to medical education and that one extra day would be required for approval of the new constitution and by-laws.

The Medicare contract was reported as operating satisfactorily with Blue Shield streamlining their operations and reducing their cost of servicing claims to $1.61 per claim.

A delegation from Yuma County Medical Society presented their difficulties with the new Parkview Hospital administration, relating chiefly to self-determination of the officers of the medical staff and membership by the hospital administrator on all staff committees. A tentative offer for members of the Arizona Medical Association together with members of the Arizona Hospital Association to act as a mediating board was proposed and accepted as the best course in the interest of harmonious solution and satisfactory public relations in the matter.

After considerable discussion of the past, present and future of the medical school problem, the meeting was adjourned in the early evening.

*Editor's Note – This has now been changed to the San Marcos Hotel, Chandler, April 28-May 2, 1959.

W. T. HILEMAN, M.D.

REPORT OF COMMITTEE ON REPORTS

(Summary)

1. Dr. Donald F. DeMarse, councilor of the Northeastern District, recommends amendment of the constitution to provide for representation of each county by one or more councilors. The reason set forth is the great distances between towns in his council area, and the difficulty of one man keeping abreast of medical problems. Your committee on reports recommends studious consideration by the house of delegates of Dr. DeMarse's proposal and also consider that such proposal may change the council from an efficient, compact group, to a bulky, cumbersome "junior house of delegates."

2. Dr. George G. McKhann, of the air pollution committee, reports the introduction of two air pollution study bills in the present legislative session. The fate of these bills is unknown to your committee on reports. We urge your continued support of the work of this committee.

3. The Arizona AMEF committee, through its able chairman, Dr. Harold W. Kohl, presents in its report figures of contributions by physicians and ladies of our auxiliaries, representing relative figures of donations nationally, and those from Arizona. We can be proud of our efforts

through dues increases and voluntary gifts. Also presented are statistics on tuition fees, loans and scholarships, average pre-medical grades of medical education. The AMEF committee presents six recommendations which deserve our consideration. Recommendation No. 3 is especially intriguing.

4. The benevolent and loan fund committee reports no meeting during 1957-58.

5. The civil defense committee met once in October 1957 and reports little progress, except for the establishment of eight stock pile depots in the western states area.

6. The delegate to the AMA, Dr. Jesse D. Hamer, who is also vice president of our national organization, reports that he attended all of the sessions of the AMA House of Delegates in June and December 1957, as well as all of the meetings of the board of trustees. His reports of the transactions of these meetings have been published in *Arizona Medicine*, and have been read with interest. He is prepared and willing to answer any questions at these sessions.

7. Fee and contractual medicine committee. This newly created committee has met once, on Jan. 5, 1958. The aim of this committee is to formulate some acceptable uniform fee schedule, adjustable to the cost-of-living index, to serve as a basis of bargaining with existing volunteer health insurance plans, as well as with Medicare and the industrial commission. We believe that this is an excellent approach to the perplexing problem of adjustment of fee to insurance carriers, and hope that the committee will continue its good work. The other topic considered by this committee was the so-called panel or contract practice of medicine in Arizona, its desirability under certain conditions, and the ethical implications of the denial of free choice of competent available physicians.

8. The grievance committee lists 10 cases discussed, and the disposition thereof. It recommends broadening of its investigative authority in matters involving complaints of insurance carriers under certain conditions and by direction of council, as well as limitation of its activities in other matters involving insurance companies and insured physicians. It re-defines the functions of the grievance committee, recommending an amendment to the by-laws. We should not resent the activities of the grievance committee for it is a potent weapon in our struggle to achieve better public relations. "We must put our house in order, for if we do not, someone will do it for us. If we stand for what is right, no one can destroy us. If we face and accept our obligations, we can live up to our magnificent heritage."

9. The history and obituaries committee reports that it is continuing research in the preparation of stories of the lives of our pioneer physicians for publication in our Journal. It solicits material and special information.

10. The legal services committee presents an analysis of the cost of the association's retainership with the legal firm of Snell and Wilmer. Most of the time of providing these services was devoted to legislative matters, re-negotiation of Medicare contract, and revision of articles of incorporation and by-laws.

11. The medical economics committee reports meetings with the industrial commission and the industrial relations board in the matter of bargaining for a more favorable and realistic fee schedule. It reviewed group insurance plans, and announced the appointment of three sub-committees. The report of one of these (fee and contractual medicine) we have already receivd. The reports of the public assistance committee and medical services standards and negotiations committee have not been received by the committee on reports for study.

12. The medical school committee met twice in Phoenix and twice in Tucson. This is a fact-finding group, investigating the facilities in Tempe and Tucson, and co-operating with the Arizona Medical Educational Foundation, as well as the science faculties of both schools. On Dec. 29, 1957, Dr. Edward Van Liere, Dean of the University of West Virginia, met with these groups and offered valuable observations on the problems, as well as costs, involved in the establishment of a two year school of medicine.

13. The Medicare committee, through its hard-working chairman, Dr. Frank W. Edel, reports inability to submit a detailed report because of the pressure of attendance of meetings in Atlanta, and in Washington, for the purpose of re-negotiation of the contract. This committee, as well as the Medicare adjudication committee, has done a tremendous amount of time-consuming and energy-sapping work. They deserve our full gratitude.

14. The medical-legal committee reports a meeting on Jan. 28, 1958 with a similar committee representing the Arizona Bar Association. Mr. Joseph Stetler, chief counsel of the AMA, was guest speaker at this meeting. Interprofessional codes of conduct, particularly in the field of malpractice claims was discussed, as was the interesting experience in the management of these problems in Pima County.

15. Ad hoc committee on poisoning control reports on the function of the Poisoning Control Information Center in Tucson with the co-operation of the School of Pharmacy of the University of Arizona. An up-to-date card index file of all known toxic agents is kept at the center. You are urged to consult *Arizona Medicine* for valuable and informative monthly reports from the poisoning control center.

16. Professional liaison committee met on Feb. 16, 1958, with representatives of the Arizona Pharmaceutical Association, and discussed the policy of referral of patient or customer for professional services, prescription renewal approval, and responsibility for telephoned narcotic prescriptions. It is anticipated that council will deliberate and take action on these matters, that articles will appear in *Arizona Medicine*, and that the University of Arizona School of Pharmacy will prepare a motion picture film on the ethical aspects of inter-professional relations between medicine and pharmacy.

17. The public relations board held no meetings during the past year. All transactions were conducted by mail balloting. Contributions were made to the Central Arizona Science Fair, and Southern Arizona Science Fair. The board participated in the Arizona State Fair in a program of testing for glaucoma. Two prizes of $50 each were authorized for award to reporters at the annual press awards dinner of the Arizona Press Club. Articles on rural health prepared by the AMA were distributed to, and published by Arizona Ranch Farmer.

18. The safety committee held no formal meetings because of lack of attendance. The chairman recommends that council increase the Central Arizona apportionment of appointments to this committee to permit better attendance at meetings.

19. The advisory committee to the Women's Auxiliary has approved the projects and program of the auxiliary, especially praising the student nurse loan fund and the AMEF fund-raising activities. The committee expressed its preference of awarding of scholarships to deserving high school graduates, rather than to graduate nurses who seek to obtain bachelor degrees.

20. The president-elect of the Women's Auxiliary, Mrs. Melvin W. Phillips, submitted the proposed program of the auxiliary for 1958-59. This includes continued emphasis on recruitment of nurses, with financial aid through the student nurse loan fund; fund-raising for AMEF will again be important, as will be promotion of Today's Health subscriptions. Other projects are civil defense, mental health, public relations, legislation, and the distribution of a news-letter. A budget of estimated income and expenditure of $4,050 is submitted, and the auxiliary requests that council again appropriate $1,000 for the purpose of continuing its excellent work.

21. The constitution and by-laws committee recommends changes in the articles of incorporation and by-laws. This report represents a tremendous amount of intensive work by dedicated members, our office staff and our legal counselors. This committee on reports does not presume to attempt to concentrate the material into a brief report, but urges you to study the recommendations carefully. A resolution will be presented before this assembly.

22. The professional liability insurance investigative committee reports the review of two proposals for state-wide malpractice insurance. The committee has recommended, reluctantly, the rejection of the first plan as currently being impractical, premium-wise; and the second proposal was discouraged because the committee considered the capitalized financial structure of the bidding insurer as unsound.

23. The industrial relations committee is very active, and it also serves as a medical advisory board to the industrial commission. It is attempting to effect certain changes in the Industrial Commission Act, especially in Rule 59a, limiting the patient's free choice of physicians, and in Election of Remedy No. 2, which provides that insurance companies may enjoy the same low fee schedule. It has re-affirmed its rules, ratified by council, regarding the ethical responsibilities of a consultant to the attending physician. It recommends that physicians who attend indus-


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trially injured patients study and become familiar with the disability guide for injuries of the back and extremities published and distributed by the AMA. The committee expresses its disappointment in its failure, through diligent negotiation, to achieve a favorable and *binding* commitment with the commissioners on a new and more realistic schedule of fees. It is our hope that Dr. Lindsey Beaton will soon make the long-awaited announcement.

THE ARIZONA MEDICAL ASSOCIATION, INC.
PROFESSIONAL BOARD

MEETING of the professional board of The Arizona Medical Association, Inc., held Sunday, April, 1958.

SUBCOMMITTEE REPORTS

Mental Diseases

Doctor Gregory, subcommittee chairman on mental diseases, reported enactment of the new mental commitment measure (HB 55, 23rd legislature, second regular session), now Chapter 84, Laws of Arizona — 1958.

Therapeutic Abortions

DOCTOR GREGORY: "The psychiatrists are frequently approached by the obstetrician or the gynecologist, general practitioner or the surgeon to certify as to the indication for a therapeutic abortion. Now, statistically, therapeutic abortions, usually 42 per cent of them, fall into the group of primary psychiatric indications. This does not include the degenic reasons for therapeutic abortion in terms of congenital neurological disorders. Forty-two per cent are primarily on the basis of some emotional cause within the mother. Now, ordinarily the surgeon or operating physician who does a therapeutic abortion on the basis of a psychiatric indication has two men to give consultations that it should or should not be done; that is usually adequate indication and a therapeutic abortion is done. However, we frequently find that certain men are usually selected for this, for one reason or another, by certain psychiatrists.

"I feel that you would be taking a step forward in keeping up with the attitude of some other states in regard to therapeutic abortions if a committee could be appointed by the individual hospitals consisting perhaps of a surgeon, an internist, a neurologist, a psychiatrist, etc., to pass on every therapeutic abortion, whether it should or should not be done. In that way, the responsibility is not placed in any one or two psychiatrists and the services of such a committee should be either gratis or at a very nominal fee to the patient."

It was moved and seconded and unanimously carried that this matter be delayed for further consideration and be the subject of business at a subsequent meeting.

General Medicine

DOCTOR ROSS: "I am concerned with the medico-legal problem which has been defined by the lay public and which is "whiplash." I wrote you a letter, Doctor Cummings, some time past, at which time I was disturbed regarding an article appearing in JAMA dealing with a "Survey of 100 Cases of Whiplash Injury After Settlement of Litigation." Recognizing the litigation potential on whiplash type of injuries with associated psychosomatic symptoms and the wide divergence among physicians, especially surgeons, as to the severity of the injury, taking into account symptoms which may well determine the degree of partial or total disability, the thought was advanced that a realistic evaluation of this growing problem might well be undertaken by medicine through the association. It was considered the professional board might be the appropriate body to instigate such interest and the outcome of such study might well establish a workable yardstick for physician guidance in proper medical evaluation and tend to eliminate the apparent wide divergence of professional prognostic opinions relative to whiplash injuries, in the interest of both the patient and medicine.

I have discussed the matter with those people concerned and am told that they do not make such a diagnosis as whiplash, that they diagnose cervical strain, cervical fracture, cervical dislocation, etc., and that the term of whiplash is not an accepted one to them. Frankly, I have no answer to this medico-legal problem. The AMA reported survey disclosed that many psychosomatic symptoms developed and were manifested in some way in 85 per cent of the cases, and on completion of litigation, these people were no longer medical problems."

Considerable discussion ensued encompassing



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a wide range of divergent but related aspects of the overall problem. It was concluded that Doctor Ross crystalize his thinking on this important subject in the light of the discussion and resubmit the problem which can then be reviewed by a subcommittee of this board, possibly general medicine, at a subsequent time.

Statewide Local Health Services

Doctor Cummings reviewed a communication received previously from Doctor Salsbury pertaining to the problem of developing statewide local health services which has become great because of the lack of recruitment of a suitable director of local health administration in the state department of health. For the past several years they have failed completely in attracting qualified physicians for this position. In a number of states, this function of the division of local health administration has been carried out with success by a non-medical employe. With this in mind, they have set up tentative specifications for such position which could be filled by either a medical or non-medical employe.

The matter was forwarded to the subcommittee on general medicine, Doctor Kittredge, chairman, who advised that the committee, on review of the program, determined that Mr. Frank Williams (present employe of the state health department), in its opinion, would be well qualified for such consideration (director of local health administration) and it so recommended.

Possibly we should consider whether the requirements for the position as set forth are satisfactory, or whether the action of the subcommittee implied approval or agreement therein. It was felt that the criteria for the position called for a doctor of medicine. In other words, you are placing a layman in a position, as a temporary expedient, that requires a physician. Recognizing that Frank Williams is a good administrator, a good promoter, and that he has done a commendable job in Pinal County, possibly the specifications for the job should be developed on the basis of purely an administration level or administrative ability. Should there be a vacancy in the position in the future would acquiescence now set the pattern for such qualification? It was the feeling that the interim approval of this particular employe does not constitute acceptance of the proposed requirements for the office on the basis of outline of need for such position.

It was moved and seconded and unanimously carried that only because of the emergency which was presented by Doctor Salsbury in his communication to us do we endorse the subcommittee's (general medicine) action in this particular instance; and that we further recommend that in considering this as a permanent assignment, that the qualifications should be that of a doctor of medicine.

Cancer

At the instigation of Jesse D. Hamer, M.D., chairman of the legislative committee of the Arizona division of the American Cancer Society, before council of the association at a meeting held Nov. 24, 1957, and on direction of the latter body, the subcommittee on cancer of the professional board was requested to review the question of creating a registry for cancer patients, as many states of equal size over the country have done, either by the department of health or other body, pointing out that in these states, through legislation, cancer has become a reportable disease.

Doctor Bregman, subcommittee chairman on cancer, by letter dated March 24, 1958, reported as follows:

"According to the abundant material existing on the matter, the concept of individual and central cancer registries is increasingly finding favor throughout the country. It is being recognized more and more that a registry is an essential feature of a sound program of cancer control at the state and community level, and I think it is commendable that the medical profession of Arizona takes on the consideration of including a central cancer registry in the framework of preventive medicine.

"In an abstract of prevailing records, it is shown that 29 states have an individual or central cancer registry, or both. Most of these are maintained by the state health department or the state cancer commission. In addition, there are specific registries such as a pathology registry in Alabama, a bone tumor registry in Oregon, and a registry in the M.D. Anderson Cancer Hospital in Texas. Cancer reporting has become formalized in 26 states. Legislation making cancer a reportable disease is in effect in six states. In 20 states cancer is reportable by state health department regulation. In effect, the concept of cancer reporting and a cancer registry pro-

gram is proving to be an effective basic tool for measuring the magnitude of the cancer problem, and for evaluating the effectiveness of control measures.

"Personally, I think the idea of cancer registries is just good business. The tradesman brings in auditors to spell out his financial position; in the case of registries and a reporting system, we are doing *our own* medical audit for cancer patients, and providing our own tool for measuring the quantity and quality of medical care provided for cancer patients in Arizona.

"After discussing this matter with several of those who have been studying it, it is my feeling that it would be advisable for us to recommend that the Arizona State Department of Health create a division of cancer control, the immediate purpose of which would be the establishment of a central cancer registry within the health department. We understand that the health department stands ready to assist the cancer control program in Arizona in this way, if such help is requested. It should be noted that transmittal of records of cancer cases to a central registry for statistical purposes can be done in such a way as not to violate the confidentiality of these records. It is anticipated that the state attorney general will support this opinion. The reporting of cancer cases to a central source is no more in danger of "leakage" to unauthorized persons than the reporting of TB or VD records — The central registry would make statistical evaluations of the *combined* experience in the individual hospitals and observe and compare the *collective* quality of medical care to cancer patients . . . it is evident that a study of cancer patients in an individual hospital permits essentially only a vertical appraisal of its activities, i.e., a comparison with itself over a period of years. On the other hand, the pooling of cancer records from a group of hospitals permits not only intra-mural but inter-mural evaluations; and it is apparent from the experiences of several central registries now in operation that the latter horizontal type of evaluation is an important stimulus to the improvement of medical care for cancer patients. The central registry, without any inference of censure or undue commendation, simply compiles the facts as they prevail, hospital by hospital, and the mere distribution of those facts to the hospitals provides stimulus for advancement in cancer control activities.

"If it would be of any value to the development of the cancer registry program, I believe that making cancer a reportable disease would be advisable.

"More I cannot say than that I endorse the concept of cancer reporting and cancer registries, and feel that it is necessary adjunct of an effective cancer program.

"Attached you will find an evaluation of the progress of the Arizona cancer registry program and you will note therein that there are 13 hospitals in the state that are now maintaining or in the process of organizing a cancer registry. This in itself certainly stands as an endorsement of the registry program."

It was moved and seconded and unanimously carried that it be the recommendation of this board that the endorsement of medicine be given this particular phase (creation of a cancer registry); that council be so informed; and that council be further advised that it is the recommendation of this board that its final action be communicated direct with the Arizona State Board of Health.

Communication from James D. Barger, M.D., chairman, cytology co-ordinating committee, Arizona division, American Cancer Society, dated Feb. 3, 1958, was presented and read, pointing out that during the past decade the society has taken the initiative in the promotion of exfoliative cytology as an important adjunct in the diagnosis of early cancer of the uterus, particularly of the cervix. Extension of the use of this procedure has become a part of its current program, a cytology co-ordinating committee with representation thereon from the Arizona Medical Association, Doctors Preston T. Brown (Phoenix), Ralph Fuller (Tucson) and Reed D. Shupe (Phoenix). It is further stated this proposed program has the approval of its society and the Arizona Society of Pathologists. Its nine points in chronological order are as follows:

1. The Arizona division organized a cytology co-ordinating committee.

2. Mobilize support and interest of responsible pathologists.

3. Secure the support of the responsible component medical societies.

4. Recruitment and training of cyto-screeners.

5. Inform all responsible physicians in the area about the program.

6. The public education program started at the proper time.

7. Provide continuity of examination.

8. Preserve the doctor-patient relationship.

9. Make the program self-supporting.

Request for official association approval is sought.

Communication from the Arizona Society of Pathologists, dated March 18, 1958, was presented and read advising it had reviewed the proposed cytology program and wishes to go on record as supporting it as outlined. The program as stated indicates that there will be emphasis on the education of the public as to the use of cytology in the detection of cancer and in the recruitment of cytology screeners. It is understood that no state health department funds are to be used, and that the doctor-patient relationship is to be maintained at all times.

It was moved and seconded and unanimously carried that we approve of the action (endorse the program); and in referring this matter to council it be pointed out that it is not presented as a result of direction from the subcommittee (on cancer) but that the report represents the personnel of the subcommittee.

Crippled Children

It was directed that the communication dated March 6, 1958, forwarded by Merle E. Nott, executive director of the Arizona Society for Crippled Children and Adults, Inc., seeking direction and advice from the medical men of Arizona in its activity through the appointment of a medical advisory committee with statewide representation be referred to the subcommittee on crippled children for review and report.

Maternal and Child Health

It was reported that the questionnaire submitted by letter, dated March 26, 1958, of C. Gordon Johnson, M.D., chairman of the maternal welfare committee for the Central Association of Obstetrics and Gynecology, relating to its study on maternal mortality, had been responded to indicating (a) to date we do not have an active maternal mortality committee within the association and that we are seeking the co-operation of the Arizona State Department of Public Health in an endeavor to establish such program, the co-operation of the medical profession to this end being assured; and (b) the maternal mortality per 10,000 live births in Arizona was: 1950 — 11.2, 1951 — 12.2, 1952 — 9.0, 1953 — 7.4, 1954 — 4.5, 1955 — 4.7 and 1956 — 5.4.

Tuberculosis

In the case of Doctor Clarence G. Salsbury vs. Doctor Leo Schnur discussed at the meeting of this board June 30 last, relating to an alleged tubercular condition of Leo Willmore, then of Flagstaff, reported by Missouri as a "far-advanced case of tuberculosis," and to bring the members up to date on the status, on Aug. 24, 1957, the chairman directed a letter to Doctor Schnur, copy to Doctor Salsbury, setting forth the following opinions:

"1. In his capacity as commissioner of the state health department, Doctor Salsbury is too frequently faced with the problem of known tubercular persons leaving their native states against medical advice, establishing residence in Arizona and their subsequent care becomes a burden to this state. It is his duty to establish, as quickly as possible, the status of the disease in such persons so that they may be returned for proper care in their own residence. We feel that such a desire prompted him to write you on May 3, 1957, for he felt that Mr. Willmore, as others have done, was attempting to evade such official investigation. The tone of his letter to you does not meet with the approval of this board, but we do understand its basic conscientious intent.

"2. We are aware that a tuberculosis patient may be investigated by the state or by his own physician if he so chooses. In the latter case, it becomes the responsibility of the patient's physician to carry out complete studies, dictated by good medical practices, and to certify to the commissioner of the state health department that the investigation proves the patient free of contagiousness of his disease. If such certification is not or cannot be given, the state health department must maintain an active interest in the case to safeguard the public and to advise treatment, preferably in the patient's native state.

"3. This board feels strongly that the state health department may not infringe upon the licensed private practitioner's right to pursue his investigation of the suspected tubercular patient. Such confidence implies that the private physician will carry out the investigation in

accordance with accepted medical practice in such cases, and seek expert consultation when indicated, and finally certify as to his findings to the state health department.

"4. The board is impressed by the solid support given to you by your county medical society as expressed in the letter of May 16, 1957, from the secretary, and accepts as fact that your investigation is being conducted in accordance with good practice.

"5. It is the board's advice to you that you officially certify to the state health department the results of your investigation, tests, and consultations. This statement from you will terminate the interest of Doctor Salsbury's office in this case and will complete your obligation to his department."

Doctor Cummings presented the correspondence received from Doctor Salsbury by letter dated March 18, 1958, enclosing a copy of letter addressed to him under date of March 14, 1958, by C. A. Pigford, M.D., director of the Maricopa County Health Department, relating to problem of correct management of individuals with tuberculosis wherein there is a difference of medical opinion concerning diagnosis, and reciting two cases as examples.

It was determined first, to prepare copies of this correspondence and forward them to Doctor Farness, subcommittee chairman on tuberculosis, for his information; second, it was directed that a letter be prepared and forwarded to Doctor Pigford requesting that he furnish this board with the name or names of the physicians associated with the two cases presented and any additional relative information available which will assist in a medical investigation into the matter to determine the facts and circumstances surrounding the diagnosis, and third, on receipt of this information from Doctor Pigford, that this board authorize a full reporting of the data then in hand to the professional committee or board of the component county medical society having jurisdiction with the request that the cases be thoroughly investigated and its findings reported to this board.

FORMER EDITOR DIES

It is with great regret that we announce the death of our former Editor-in-Chief, Doctor Frank J. Milloy. Doctor Milloy who was Editor-in-Chief of Arizona Medicine from Jan., 1942 to Oct., 1952 passed away quietly after a long illness on August 4, 1958. Beside Doctor Milloy's work as Editor-in-Chief of Arizona Medicine and later as member of the Editorial Board, he has held many offices in medical organizations in the State and his service to medicine in Arizona has been outstanding, he will be greatly missed.

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THE ARIZONA MEDICAL ASSOCIATION, INC.

1957-58 ANNUAL REPORT OF THE PROFESSIONAL LIABILITY INSURANCE INVESTIGATING COMMITTEE

DURING the past year, this committee had the opportunity to review two detailed proposals for state-wide group malpractice insurance.

On May 19, 1957 the committee met with Mr. Gilbert Smith of the Nettleship Company of Los Angeles. Several of the county medical societies in California currently carry group malpractice insurance through the Nettleship Company. These are proving to be quite satisfactory from the standpoint of protection and, through an active claims prevention program, either have or may offer reduced premiums.

The committee felt that the proposal offered was a most desirable one. The initiating premium schedule, however, was generally higher in all categories than rates offered to individual physicians in Arizona through carriers currently writing malpractice insurance in this state. In some instances the rates were as much as 30 per cent higher.

The committee has been impressed with the fact that the trend nationwide is for increased claims, suits, judgments and premium rates. They further feel than an active group malpractice plan which includes a vigorous claims prevention program offers the best protection against these adverse trends and the best outlook for premium reduction based on a favorable experience. It was their consensus, however, that a group program which carried a premium rate averaging approximately 15 per cent higher than current individual rates would not be accepted by a sufficient number of the association's membership to place this plan into effect.

The second proposal offered was more favorable rate-wise, but would have been written through a B-plus rated company incorporated in February 1956. The committee felt that any plan they approved should be with a company of sufficient seniority and size to offer stability possibly not present in a young company which, in this case, was capitalized at $150,000.

Recently Mr. C. Joseph Stetler, director of the AMA law department, was briefed on the problem facing the committee. He had no suggestions as to an alternative course.

Our conclusions are, therefore, that very definite and desirable features would be gained through the acceptance of a state-wide group malpractice insurance plan, but that the adoption of such a plan is currently impractical premium-wise.

Respectfully submitted,

HOWARD C. LAWRENCE, M.D.,
Chairman

MEMBERSHIP

SINCE April 1, 1957, 62 new members were admitted to our component county medical societies and this association as follows: Apache, 1; Cochise, 1; Gila, 1; Graham, 1; Greenlee, 1; Maricopa, 28; Pima, 15; Yavapai, 1; and Yuma, 3. There are at the present time 901 members in the association, compared with 857 at this time last year. Membership by county is as follows:

Apache, 4; Cochise, 25; Coconino, 15; Gila, 17; Graham, 7; Greenlee, 6; Maricopa, 476; Mohave, 2; Navajo, 6; Pima, 256; Pinal, 29; Santa Cruz, 8; Yavapai, 21; and Yuma, 29.

The 901 total membership figure is broken down into the following classifications: Active, 829 (including 50-Year Club); Service, 26; and Associate, 46.

THE HEALING ART AND THE CHANGING TIMES*

By Paul B. Jarrett, M.D.

THANK YOU very much for the introduction, but truthfully I always breathe a sigh of relief when an introduction is successfully passed, and I'll tell you why. A few months ago as I was leaving the hospital, a man stepped up to me and said, "Doctor, I wonder if you would take a few moments to meet my wife? She is one of your most *ardent* admirers. You have operated successfully on a dozen of her friends, and she says that she would travel across the country to you if she required surgery. We have just visited one of your post-operative patients, a friend of ours who is doing beautifully, and here we have encountered the man whose skill brought about this result! Please step over here

*Reprinted from Arizona Pharmacist.

and meet my wife — this will be the high-light of her week. Darling, meet *Dr. Thomas Woodman!*"

It used to be said that "one thing is *certain*, none of us will get off this earth alive!" It would appear now that this statement is about to be proved false as have so many other alleged "truisms." A statement of fact that will always remain is that, "one thing is certain and that is change." To explore the possibilities of this change and to consider the past, present and prediction for the future is a most interesting venture, becoming a fascinating one where the healing art is concerned.

We have come a long way from the time when families brought their sick to the market place, there to display their infirmities in the hope that some passer-by would have had experience with the condition and thus offer helpful advice. It has been a long road from Mukerji, the Indian lithotomist, to our present day surgery and use of modern anesthesia. Pharmacy and medicine have had their heroes whose roles have been to enlighten, and sometimes to confuse. Witness the efforts of John Hunter who in 1767 tried to decide whether or not syphilis and gonorrhea were due to the same "toxin," as he put it. He inoculated himself with pus from a patient with gonorrhea and promptly developed a syphilitic chancre which he carefully observed and described, and then undertook to cure with three years' treatment with mercury. He died of syphilitic arterial disease, a true hero, but one who considerably clouded the true status of syphilis and gonorrhea. In 1800, Dr. James Tongue of Maryland inoculated himself and a few more co-operative students to prove these two diseases were separate, but was unable to make as complete a demonstration as he wished due to the, and I quote, "aversion most people have to being experimented upon, particularly with the veneral virus." In 1892, Max von Pettenkoffer intended to prove that cholera is acquired by drinking cholera vibrios, but he failed to die to prove his point. Finally a certain Obermeier inoculated himself with vibrios and obligingly expired to vindicate his predecessor's beliefs. Noguchi was under the impression that he had vaccinated himself against yellow fever when he actually used the Leptospira icterohemorrhagicae of Weil's disease. His death from yellow fever after venturing into West Africa also clouded the picture, but in spite of misconceptions and errors, our knowledge has grown by geometric rather than linear increase. We have our heroes today, too, — Dr. W. Forssman was the first man to pass a cardiac catheter — on himself. He made two tries at it before he got the tip into his right heart chamber. The first time he had to stop at a distance of 35 cm. because it was too hard on his *colleague* who was acting as his assistant. Later he passed the catheter a distance of 65 cm. in the *absence* of his worried assistant. Dr. John Stapp has ridden a rocket sled 632 miles an hour with deceleration forces of terrific magnitude. Through the ages such devotion as these men show has been responsible for our present status. All of the contributors didn't undertake such hazardous experiments to be sure, but all were and are endowed with that extra quality of spirit for which we today can thank providence.

The Old Order Changeth

What have these men and a host of clinicians, pharmacists, experimenters and investigators accomplished? Since the greatest changes have occurred in recent times, many of us can claim to have witnessed the most spectacular of these changes. What has happened to small pox? How many of today's graduating physicians have seen a case of typhoid fever? How long has it been since you pharmacists have stocked pneumococcus anti-sera? When did you last dispense diphtheria antitoxin? Let me show you some comparative mortality figures: The general mortality in the United States during 1957 was only 9.6 per 1,000. In 1952 we had 58,000 cases of polio compared with 6,000 reported cases of both paralytic and non-paralytic last year. The death rate for tuberculosis fell below 8 per 100,000, the total decrease in mortality over the past 10 years is 75 per cent! The total decrease in measles, scarlet fever, whooping cough and diptheria was 20 per cent over 1956, and there were even fewer cases of typhoid fever and infectious hepatitis last year. Infant mortality continued at all time low levels. Deaths were about 26 per 1,000 live births, which is a decline in infant mortality of 20 per cent since 1947, over 50 per cent since 1937! Maternal deaths decreased by almost 75 *per cent* in the past decade — just think of that! The number of babies born during 1957 set a record for the seventh straight year. How many do you think

were born last year? The total is 4,318,000 — 98,000 more than in 1956. This would seem to indicate that a lot of people are staying awake nights — walking babies, that is!

A generation or so ago, before the advent of specific therapy, the family doctor was a much revered physician, counselor, friend and father confessor. He gave much of himself and with a more rual type of practice then, came to know his patients intimately. He was powerless to do more with the family than share the agony of their concern while a pneumonia crisis was being passed, for example; often with a fatal issue. He prescribed principally coal-tar derivatives, laxatives, quinine, digatalis, squill and nux vomica. Frequently his treatment was worse than no treatment at all; frequently the result was unsatisfactory but *he* occupied a place in the minds and hearts of his patients that has little counterpart in today's physician-patient relationship. It has been pointed out by others that there is a curious paradox in existence. The more successfully and specifically we treat our patients, the *less* is our personal prestige. The patient *expects* modern medicine to cure him, and when this is accomplished, the *drug* receives the credit. The thing that impresses the patient the most is the size of his doctor and drug bill. Even worse in today's "do it yourself" craze is the definite conviction on the part of the patient that he really doesn't need the doctor, but due to a dark conspiracy between the doctors and pharmacists, he is forced to pay an office visit in order to obtain a prescription for an antibiotic that he *knew* he needed in the first place, and besides, he ought to be able to lay in a supply wholesale — except for this calculated interference by the great medical and pharmaceutical trusts. Unquestionably some of this deterioration in public relations is our fault, in that we have gotten too busy to be anything but crisp and efficient, but for every person who decries the passing of the old fashioned family doctor, there is a doctor who decries the passing of the old fashioned family. How many people today in spite of the paternal nature of the old family doctor, would swap a shot of penicillin for an all night bedside vigil by the powerless physician?

Science Marches On

Progress, for good, evil or both has made some changes in your modus operandi too. Today when we describe the tremor of Parkinsonism as a "pill rolling palsy," no one knows what we're talking about. The apothocary's shop has been replaced by an establishment that would be beyond the comprehension of our early day pharmacists. The pestle and mortar has been replaced by the dynamic-mutual-conductance vacuum tube testing machine. You fellows do very little compounding any more, but what you do dispense is better formulated, better prepared and more efficacious than anything our fathers had in time of illness. For this increased efficiency and better service, you and I both have lost some of our prestige and professional standing, but for Heaven's sake let's not lose any more of our humaness! As far as the self-prescribers and do-it-yourself lads are concerned, I'm not quite in the same boat with you on that score — I see lots of ads for some new discovery from nature that makes piles cease to be a problem, but I have yet to see advertised a "Handy Dandy hemorrhoidectomy kit complete with mirror!" I eventually get the ones who hoped the "new miracle discovery" would cause their piles to cease to be a problem too. However, if you think the end to impersonal era of medical treatment is at hand, let me tell you about one of the more recent developments in diagnosis. Cybernetics has come to the practice of medicine. The modern way to make a diagnosis is to feed into a machine all the data, observations, laboratory findings pertinent to a case, and by means of electronics, this material is digested, contemplated, compared, and, quick as a wink, a diagnosis is issued which has a better chance of being correct, I'll wager, than the concensus of a group of consultants using their own feeble brains. Heaven help us, when the machine no longer requires someone to feed the data to it.

It is possible, I suppose, that the future doctor's role will be the repair of the machines, in which case he may command as much for a house call as a television repairman. You are beginning to see why, with an eye to the future, my chosen field is surgery. It may be humiliating for me to have an apparatus full of tubes, coils, resistors, condensors and relays tell me where to cut, but I'd like to see the patient that would permit the machine to do the cutting, at least until electronics is far enough advanced to prevent flop-over on our video screens.

A few generations ago, a female in the household had to have passed her 23rd birthday before she was permitted to see the men's side of the laundry list. Today our magazines have so thoroughly indoctrinated her into the facts of life that the actual experience is an anti-climax. Not only does she know what every girl should know, she knows a lot about what she shouldn't know, and doesn't know a lot that she thinks she knows. Now if this sounds confused, you should hear some patient tell why he or she feels that they have a certain disease — which they read about, and why they need a particular drug that you may have difficulty obtaining because it isn't on the market yet. One of my patients was quite upset because she had everything that appeared in the Cosmopolitan until she discovered she could cure it in the Ladies Home Journal. The Post reader surveys showed that in every year since 1940, the category of health and medicine has ranked at or near the top of readership figures. For example, in 1936 the Post published just two medical articles; in 1956 there were 36. The Post in 1956 mentioned 72 different drugs a total of 330 times, compared with no drug mentioned in 1936. As MD magazine pointed out, the "enthusiasm of Americans for staying healthy is undampened." The estimated sales of all pharmaceuticals in 1957 was $1.7 billion compared with $1.5 billion a year ago and only $850 million 10 years ago. About two-thirds of 1957 sales were prescription drugs. One disturbing fact is that tranquilizer sales volume was over $150 million. Let us beware lest we tranquilize ourselves out of the running. I'm sure you have heard the story of the pediatrician who noted little the matter with the child, but such a worried concern on the part of the mother that he prescribed some tranquilizers for *her*. A month later when she kept the appointment for the child, the doctor asked her how he was. "Him?" she said, "Who cares?"

Curious, in the evolution of the patient from an individual who accepted his doctor's word as gospel, and looked upon his pharmacist as a very learned man, is the attitude of modern patients toward fixing the blame and responsibility in the event of a less than desired result. Our legal brethern have long bemoaned the alleged "conspiracy of silence" when doctors testify in malpractice cases. That this doesn't exist is a simple matter to prove by examining the court transcripts. If no witness is available locally, they import one, and he certainly doesn't testify to influence in favor of the defendant physician. The legal doctrine of res ipsi loquitur that in effect makes the physician the guarantor of his patient's safety, has done away with the need for expert witnesses so the "conspiracy of silence" shouldn't be such a conversation piece. If this doctrine continues to be applied with substantial awards to a plaintiff patient, which also requires the doctor to prove that he was *not* negligent, rather than requiring the patient to prove that he was, we may reach a point where we dare not try anything new or out of the ordinary in an attempt to help our patient. Should this sad state be reached, you may hear no more about the marvelous things to come about which I shall tell you. I mentioned these things not because they represent a large portion of our professional travail, but because such things don't exist in our father's time and they represent problems and attitudes that go with the changing times. That they influence the healing art, there is no doubt.

Things To Come

Before we speak of things to come, let's see what the times have brought us in the way of customers for medical mail frauds. Surprisingly enough, the Number One medical fraud in number of sales is a nostrum for losing weight without dieting. I'll bet you that in this day and age I could peddle an antigravitation belt and have buyers firm in the conviction that they would work. Second in popularity are cancer cures, and this is a tragedy — in part due, perhaps, to the doctor's desire to protect the estate by telling the patient when nothing further can be done. This has the effect of throwing the cancer victim into the open arms of the quack and mail fraud artist. Third are arthritis cures, but then vanity reappears and in order of sales come nostrums for clearing the skin, for growing hair to cover a glistening pate, and for restoring or establishing sexual potency. On the distaff side next, is a bust developer. In a recent short period, according to the post office chief inspector's department, 106 persons signed agreements to discontinue their questionable enterprises. These 106 were earning $225,000 a day!! That's an income of over $2,000 per day to the individual entrepreneur. That would buy a

lot of Dr. Jarrett's Livitupamin! You can imagine the value of the agreements with money like this to be had. Barnum was certainly right!

Now, what is coming if we can learn to live together on this increasingly smaller planet? What is ahead within our lifetime, perhaps? In 1988, 30 years from now, most communicable diseases will have disappeared. Tuberculosis and poliomyelitis will be remembered by some of us "old timers" but our grandchildren will never have first hand experience with these former scourges. Insulin injections for diabetes, will be a thing of the past. Sterilization of instruments, drugs, sutures and dressings, will be by means of electron bombardment in accelerators with generators supplying millions of volts. The old fashioned steam autoclave will join the steam locomotive. The use of plastic implants to substitute for missing or defective natural parts will be expanded until valvuloplasty with artificial heart valves as inserts will be a common operation in any larger city. Already, more than 250,000 men, women and children have successfully undergone surgery on the heart and its great vessels. A universally satisfactory operation will be devised for coronary insufficiency, one our our major problems. Electronic pacemakers and nerve stimulators to automatically give impulses to initiate heart muscle contraction and rhythmic breathing will be in universal use, and artificial heart, lung and kidney machines will be taken as a matter of course — even as our children regard television as having always been.

The use of ultra sound will be expanded to destroy many types of deep brain lesions without serious risk to the patient; but what is more important perhaps will be the rise of ultra sound diagnostically to supplement by sonagrams our X-ray pictures to give us not only a better view of the viscera, but a better idea of the pathological process present. We could make predictions of things to come in surgery and in newer instruments that would seem fantastic, with a good chance that by 1988 such things will be commonplace.

What about new drugs to come? One of the most encouraging developments in the field of neuro-psychiatry in recent years has been the development of drugs useful in the treatment and care of psychotic patients. The possibility that many psychoses are on a metabolic and chemical basis rather than on a functional one is promulgated by the fact that very tiny doses of substances such as lysergic acid will reproduce all of the signs and symptoms of schizophrenia in a normal person, complete with hallucinations. Stress may trigger this abnormal metabolic process however. In time to come, the ratio of beds in mental hospitals to other types of hospitals will be greatly altered. I don't look forward to the development of any "smart" pills, but we'll have very effective drugs for treating mental illness. The riddle of cancer will also be solved through inhibition by means of drugs!

If only we could develop a pill to make men as durable as women! In 1954, the expectation of life of white women was 73.6 years, but only 67.4 for the man. It is interesting to note that throughout the world, the ratio of female to male births is 100 girls to 105 or 106 boys. No reason for this is known, but there are a lot of theories. The average male brain is about 100 Gms. heavier than the female. The male heart averages 312 Gms., the female 255, but the heart is 0.53 per cent of body weight in women compared to 0.43 per cent in men. Women have a greater ratio of fat, are able to regulate body heat production and loss better than men, have superior hearing up to age 65 — as many late-home-coming-husbands have reason to know — and are generally healthier although they tend to visit doctors more. Women are also better operative risks than men. So you see, there *is* a difference! In France, this statement was met by a resounding, "Vive la difference!" The fact that females are more resistant to disease and the stresses of life, have fewer post-operative complications, and in general have more efficient biological existences and continue to outlive males, poses some problems both now and in the future. In the days when childbirth was a great hazard, the numerical ratio of males to females was about even, now the females greatly outnumber the men, so much so that we are becoming more and more a matriarchal society. The changing times bring us a population that is growing older and older so that geriatrics or the care of the aged is now a specialty in itself, unheard of a few generations back, and I suppose we'll have to find out what word the Greeks had for the care of old women and adopt another sub-specialty. In time to come,

the problems of the aged will be solved so that they will live out their expanded years in comfort, usefulness and serenity. As an interesting side observation, the control of the bulk of the nation's wealth will be in the hands of these oldsters too.

More Leisure

With added years to our lives and more and more automation and scientific labor saving devices, world citizens will have increasing leisure that will, if properly used, enrich their lives through recreation, study, and cultivation of the cultural things. In order to be healthy and happy, a substitute for work must be found to profitably occupy the time and mind of our increasing numbers of people. If there is no comparison today with our work-to-leisure-time as contrasted with that of our grandfather, who had to work just about all of his waking hours to make a living, think what it will be like in the expanded atomic era when push button living is extended to even the most backward countries. The things to come will make what is past seem primitive indeed, providing the human race is ready and worthy of them.

Now as we get toward the conclusion of this discussion which has been in very general terms, we come to problems of the future incident to getting man off this earth alive and returning him in good condition. It is one thing to send insects, mice and even dogs into the vast reaches of space, but another to solve the vital physiological and mechanical problems before man can project *himself* into inter-stellar space. One of the principal problems involves the speed at which our physiological processes work as contrasted to the speed that we will attain in space travel. It is apparent that our sense organs weren't designated by our Creator to function at super-sonic speeds, and man's delay in visual perception keeps him behind the present instant as much as 1/10th of a second. At three times the speed of sound, this would mean a distance of 100 yards. Thus, if two vehicles were on a collision course at this speed, either pilot would *see* the other at less than 600 feet, much less have time to take evasive action. Think of the distance at satellite speed of five miles per second! A further problem is that the outside temperatures of space craft in encountering the thermal barrier will approximate from 300 C. to 2,000 F.

There are problems to be worked out of escape and survival at supersonic speeds from faulty vehicles; problems of a psychologic nature too, to be solved. One experimental subject who was confined in a cubicle for 48 hours reported seeing a procession of squirrels with sacks over their shoulders marching across a field of snow. The expression "squirrely" apparently isn't confined to nuts. In another test where volunteers were kept for 30 consecutive hours in cockpits where they had to monitor instruments and perform complex perceptual tasks, one man reported that the instrument panel kept melting and dripping on the floor; another one had to spend a good deal of his time brushing away little men on the air speed indicator. Acceleration forces of many times gravity will be encountered, perhaps up to the point of significant injury. We know what will kill an ape in the way of deceleration force, but we don't know about a human and acceleration loading.

Much has been said about the possible effects of the state of weightlessness. There are those who contend that this will have a definite adverse effect on body processes. There is no way on earth to produce this state for more than a few seconds so the answer as far as man is concerned awaits the actual space trial. The magazine, Soviet Aviation, an official Russian publication, said that weightlessness had no appreciable effect on the satellite dog's blood pressure, pulse or respiration. We only assume from this that the same would apply to humans or even to other dogs for that matter.

Perhaps when we arrive on Mars we'll find creatures who breathe methane, but *we* have to utilize oxygen. The need doesn't end with our oxygen supply either, it must be *oxygen under pressure.* As our altitude increases, the pressure or oxygen tension decreases. On space flights that may take months or years, maintaining an oxygen supply and the necessary pressure is an essential but not an insoluble problem. Pressure is necessary for more than oxygen interchange too. At 63,000 feet, the pressure is so low that blood would effervesce like soda water or champagne after the cork has popped. A similar situation exists at greater than atmospheric pressure when the pressure is released too rapidly, as occurs occasionally in divers or caisson workers.

With the tremendous amount of power required to launch a heavy rocket, steps will have

to be taken to protect the hearing apparatus of those exposed to 145 decibels of sound and over. The types of injury from this tornado of sound may extend beyond the ears and involve other parts of the body as well. Before the advent of the jet engine, a boiler factory was the noisiest thing we had to contend with.

Much has been said about the effect in the human body of cosmic rays, those curious and penetrating particles from outer space. Probably the immediate effects of these rays aren't too serious, but may affect future generations through bombardment of the sex cells of those exposed to high concentrations. While we are on the subject of the influence of irradiation, it is becoming more and more apparent that we are going to have to do something soon about the amount of long-lasting irradiation that we are throwing into the atmosphere through nuclear fusion bomb tests. In all seriousness, we must either stop this type of testing or clean up the bombs so that fall-out is greatly reduced. When I say "we" I am referring to the U.S.S.R. also. The problem of storage in the bones of our growing children of strontium 90 is becoming an alarming one. The amount of this radioactive substance which may be taken up by the bones of future generations may alter the human race beyond recognition if not eventually destroy it, unless we have *responsible* co-operation between nations in controlling the amount of radio-activity released into our blanket of atmosphere — and soon. In my mind, this is one of our most pressing ecologic problems today.

Patient of the Future

The physician today (and even more so the physician of tomorrow) will see more and more patients whose ill defined symptoms represent a scared human being who is running to his doctor for comfort and reassurance. The fact is that 20th century man is becoming exceedingly frightened of his own handiwork. Atomic physics unleashed the basic energy of life itself, but with the potentiality for destroying all life in a cataclysmic and idiotic horror of nuclear fusion. The potential of abundance and halcyon days for everyone exists on the one hand, or the specter of fiery destruction or mutation of the species into some grotesque and horrible monstrosity exists on the other. This crossroads has in fact made the gastro-intestinal ulcer in two short generations the endemic disease of the 20th century. One wit refers to "the peptic plague." We are living at a great pace and one of ever-increasing acceleration. We travel faster than the speed of sound by many times, and we are speculating on attaining the speed of light, although the theory of relativity which so far has been correct, tells us that time will stand still when a certain velocity is attained. The transition from the horse and buggy to interstellar space travel has been too rapid, spurred as it was by a great war which accelerated the conquest of our atmosphere to the point where human frailty limited the development of air vehicles within our atmosphere. Without a great and abiding faith, and the assurance that the course we will take in the future will be the right one, we stand a good chance of falling apart at the seams.

In summary then:

More progress has been made in the last 50 years in the conquest of disease and the prolongation of life than had been accomplished in the entire 999 centuries of man's previous life on earth. The most eloquent summation of what has been accomplished can be expressed in terms of life expectancy. Diseases such as cholera, yellow fever, small pox, plague and many others have been eliminated; pneumonia has been defeated by a decline in death rate from 152 per 100,000 to 12. Forty years ago, one of every four persons subjected to a major operation met his doom — today only one in 100 dies, and a few years ago surgeons wouldn't operate when the risk was considered great. We are witnessing the end of diseases such as poliomyelitis. We are, on the other hand, witnessing phenomenal rises in diseases of the heart and blood vessels, peptic ulcer, the degenerative diseases and the "stress" diseases. Problems of our expanding technology are being met to take us "out of this world" and return. Our progress has altered our thinking, our reactions and to some extent our sense of values. We are about to face the test of whether or not the human race is worthy of the fabulous age and the millenium or whether in our unworthiness we have outstripped ourselves.

One thing besides change is certain, these changing times are certainly interesting times.

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FOURTH DOSE OF POLIOMYELITIS VACCINE

THE AMA council on drugs was requested to express an opinion as to the need for administering a fourth dose of poliomyelitis vaccine. This vaccine previously has been found to stimulate production of protective levels of antibodies effective against paralytic forms of the disease in a high percentage of individuals who have received a primary series of three 1-cc. doses injected at suitably spaced intervals (See New and Nonofficial Drugs, 1958, pp. 530-531).

Although the relationship between detectable serum antibody titers and resistance to poliomyelitis has not yet been fully delineated, the council considered currently available information regarding the level and persistence of antibodies in vaccinated subjects. Studies of antibody titers indicate that in most cases they remain at presumably protective levels, but in an appreciable number of persons they fall to undetectable levels about one year after the third injection of the commercially prepared vaccine. Epidemiological data also reveal that paralytic and nonparalytic infections occur in a considerable number of previously vaccinated subjects who have received three injections at the suggested optimum intervals. Since such cases have not been correlated directly with serum antibody levels, further observations over a longer period will be required to determine precisely whether more than three injections of the vaccine are necessary to produce a lasting protective effect.

Some individuals who have received three doses may be among those whose resistance to the disease can be increased by another injection of the vaccine; therefore, a fourth 1-cc. dose may be administered on an individual basis at the discretion of the physician if there is no history of adverse reaction to the original series, and if a period of not less than six months and preferably one year has elapsed since the third injection. Special consideration may be given to triply vaccinated persons, on account of (1) travel, (2) relative infrequent opportunity to acquire some degree of natural immunity beeause of a protected mode of living or residence in rural or isolated communities, (3) residence in areas where unusual prevalence is anticipated, or (4) irregularity in the primary series of doses. Administration of a fourth dose is, in general, less urgent than the previously recommended three doses for those who have not had all three, and especially for young persons who have had none at all.

The council voted to amend the New and Nonofficial Drugs monograph on poliomyelitis vaccine in accordance with the foregoing statement.

THE PRESENT AND FUTURE STATUS OF FOREIGN MEDICAL SCHOOL CREDENTIALS IN THE UNITED STATES

Introduction

SINCE February 1950, the council on medical education and hospitals of the American Medical Association and the executive council of the Association of American Medical Colleges have published a list of foreign medical schools whose graduates are recommended for consideration on the same basis as graduates of approved medical schools in the United States and Canada. This has always been offered as an advisory list for the use of state licensing boards, hospitals, specialty boards and other organizations in the United States concerned with the evaluation of medical credentials and qualifications of graduates of foreign medical schools. These same organizations have always been advised that the list was acknowledged to be a tentative one and that the position of the councils with respect to the foreign medical schools not listed has been that they neither approve nor disapprove of them.

In the years since the initial publication of this list, the number of graduates of foreign medical schools coming to the United States on either temporary or permanent visas has increased tremendously. The vast majority of physicians now entering this country either for further study as interns or residents or for permanent stay and medical licensure have received their medical degrees from medical schools other than those listed.

It is impossible for the council on medical education and hospitals of the American Medical Association and the executive council of the Association of American Medical Colleges to obtain and maintain adequate and current information concerning the educational programs of all or even a reasonable portion of the medical

schools in the world whose graduates will now and in the future wish to come to the United States. For this reason, the two councils many months ago reached the decision that it was no longer feasible to maintain a recommendation regarding graduates of foreign medical schools based on the school of graduation. After considerable study, it was concluded that a mechanism for the evaluation of the medical credentials and qualifications and facility with the English language of the individual foreign physician would be more generally equitable to graduates of all foreign medical schools desiring to enter this country. A program of this kind would also better serve the welfare of American patients for whose care these physicians would have responsibility.

The Educational Council for Foreign Medical Graduates

After more than two years of co-operative study by representatives of the American Hospital Association, the American Medical Association, the Association of American Medical Colleges, and the Federation of State Medical Boards of the United States, a method for evaluating the graduates of foreign medical schools wishing to come to the United States has been devised. The four parent groups have sponsored the organization of the Educational Council for Foreign Medical Graduates (ECFMG) to implement this new program. The Educational Council for Foreign Medical Graduates (ECFMG) has been legally incorporated in the State of Illinois and is located at 1710 Orrington Ave., Evanston, Ill. Responsibility for the affairs of ECFMG rests with a 10-member board of trustees which includes two members each selected by the American Hospital Association, the American Medical Association, the Association of American Medical Colleges, the Federation of State Medical Boards of the United States and two representatives-at-large (one selected by the United States Department of Health, Education and Welfare and one by the United States Department of Defense.)

ECFMG will evaluate the medical credentials of graduates of foreign medical schools wishing to enter the United States. Credentials will be declared acceptable if they indicate that the foreign graduate has completed no less than 18 years of formal education including at least four academic years in a bona fide medical school. For candidates whose credentials are acceptable, ECFMG will test their knowledge of medicine and command of English through testing centers in the United States and abroad. Those candidates who are successful will be certified as possessing medical knowledge reasonably equivalent to that expected of graduates of approved medical schools in the United States and Canada and as having satisfactory facility with the English language. The certification so acquired will be transmitted to hospitals, licensing authorities, specialty boards and other appropriate organizations or institutions as desired by the candidates.

It is to be emphasized that ECFMG (and also the council on medical education and hospitals of the American Medical Association and the executive council of the Association of American Medical Colleges) is not designed to serve as a placement agency. Graduates of foreign medical schools must continue to make arrangements for placement in U. S. hospitals through direct correspondence with the hospital(s) concerned. Assistance in placement may also be obtained through the National Committee for Resettlement of Foreign Physicians, Inc., 31 Union Square West, New York 3, N. Y.

Further information regarding the program of ECFMG, procedure for making application, dates and locations for testing, fees, etc., can be obtained by corresponding directly with the Educational Council for Foreign Medical Graduates, 1710 Orrington Ave., Evanston, Ill.

The Present and Future Status of the List of Foreign Medical Schools

In February 1958, the council on medical education and hospitals of the American Medical Association and the executive council of the Association of American Medical Colleges acted to withdraw the current list of foreign medical schools for whose graduates the councils have recommended consideration on a basis comparable to that of graduates of approved medical schools in the United States and Canada. *The withdrawal of this list and its accompanying recommendation is to become effective as of Jan.* 1, 1960.

The councils wish to emphasize that this notice of discontinuing the listing of certain foreign medical schools is not intended to indicate any lowering of standards of the foreign medical schools that have been on the list.

Rather, this action reflects the councils' inability to acquire and maintain a continuing, adequate knowledge of the educational programs of all the foreign medical schools whose graduates come to the United States.

The council on medical education and hospitals of the American Medical Association and the executive council of the Association of American Medical Colleges now recommend that licensing boards, hospitals, specialty boards and other organizations in the United States concerned with the medical qualifications of graduates of foreign medical schools, *consider certification by the Educational Council for Foreign Medical Graduates as evidence that the recipient of such certification is possessed of medical knowledge comparable to that expected of graduates of approved medical schools in the United States and Canada.* These two councils further recommend that *such certification be considered as evidence of the quality of medical training offered by the medical school attended by the holder of a certificate at the time of his graduation.*

In the interval between the present and the Jan. 1, 1960 effective date of withdrawal of the list of foreign medical schools, the councils will support the recommendation in regard to graduates of the listed schools and also the recommendation pertaining to certification by the Educational Council for Foreign Medical Graduates. The councils believe that the transition period of almost two years should allow adequate opportunity for all concerned to adapt to this new program.

The present and future status of graduates of foreign medical schools seeking advanced (internship and residency) training in the United States under the exchange-visitor program

The council on medical education and hospitals of the American Medical Association will revise in the near future its "Essentials of an Approved Internship" and "Essentials of Approved Residencies and Fellowships" to include a statement to the effect that hospitals considering foreign medical school graduates for internship or residency positions are recommended to acquire reasonable assurance regarding the medical qualifications of foreign trained physicians by deferring their appointment until the candidates have been certified by ECFMG.

It is expected that this revision will be effective for intern and residency appointments to begin on and after Jan. 1, 1960. Since graduates of foreign medical schools accepting appointments as interns and/or residents in the interval period before Jan. 1, 1960 are likely to consider seeking reappointment after that, it is suggested that where possible they avail themselves of the opportunity of evaluation by ECFMG before that date. *Regardless of the date of appointment, it is expected that all graduates of foreign medical schools serving as interns or residents in U. S. hospitals as of July 1, 1960 will have been certified by ECFMG.*

The present and future status of graduates of foreign medical schools entering the United states on permanent (immigration) visas

Neither the council on Medical Education and Hospitals of the American Medical Association nor the executive council of the Association of American Medical Colleges is in a position to render advice concerning the basic privilege of immigration. Information concerning immigration to the United States can be obtained from the nearest United States consulate or embassy or from the Immigration and Naturalization Service of the United States Department of Justice.

Medical licensure in the United States is a "state right" and is entirely under the jurisdiction of the governments of the individual states. The power to license physicians is exercised through the medical licensing boards of each individual state and there is no licensure of physicians in this country by the federal government. It is not possible for either council or for ECFMG to intervene on behalf of any individual seeking licensure whose credentials do not meet the requirements of the board to which he has applied. ECFMG will, however, on request of the foreign trained physician notify any board of his certification acquired through the new evaluation program.

A summary of the present requirements of the various states, territories and possessions for medical licensure of foreign medical graduates is collected annually by the council on medical education and hospitals and published in The Journal of the American Medical Association. Current and more detailed information should be obtained through direct correspondence with

the secretaries of the boards in those states in which the foreign medical graduate is most interested.

Graduates of foreign medical schools contemplating immigration to the United States for the practice of medicine should note that one requirement of the vast majority of states is an approved internship in the United States. It is anticipated that hospitals offering approved internships will request that graduates of foreign medical schools seeking such positions on and after Jan. 1, 1960 will have obtained certification by ECFMG. It appears likely that some hospitals may expect such certification prior to that date. *Regardless of the date of appointment, it is expected that all graduates of foreign medical schools serving as interns or residents in U. S. hospitals as of July 1, 1960 will have been certified by ECFMG.*

The Federation of State Medical Boards of the United States helped create and strongly supports the program of the Educational Council for Foreign Medical Graduates and it is anticipated that increasing numbers of individual medical licensing boards will require certification by ECFMG as prerequisite to licensure examination for foreign medical graduates. It is likely that by Jan. 1, 1960 many and perhaps most licensing boards will have established this requirement.

Present and future status of American citizens studying medicine outside the United States and Canada

American citizens undertaking their medical studies abroad have been subject to the same regulations and procedures governing medical licensure and intern and residency positions as are all other graduates of foreign medical schools. Therefore, Americans enrolled in medical schools outside the United States and Canada who plan to return to this country for internship, residency and/or medical licensure are encouraged to seek certification by ECFMG on completion of medical school studies. Comments appearing above concerning the relationship between ECFMG and internship and residency positions and medical licensure for foreign medical graduates entering the United States on permanent visas are equally applicable to American citizens studying medicine abroad.

Policy of the American Hospital Association concerning graduates of foreign medical schools

The American Hospital Association has strongly supported the organization and efforts of the Educational Council for Foreign Medical Graduates. It believes that only qualified medical graduates should serve in patient care situations in hospitals. To this end, it now advises hospitals considering appointment of foreign medical graduates to their staffs, wherever they can do so with fairness to themselves and to the foreign medical graduate, to accept only foreign medical graduates certified by the Educational Council for Foreign Medical Graduates.

It is expected that all graduates of foreign medical schools serving as interns or residents in U. S. hospitals as of July 1, 1960 will have been certified by ECFMG. The American Hospital Association will take this into consideration when approving hospitals for listing.

Policy of the national intern matching program concerning graduates of foreign medical schools

The vast majority of graduates of American medical schools acquire internship appointments through a matching program which assures them a position in the first hospital of their choice that ranks the graduate high on its list of prospective interns. In the past, the National Intern Matching Program, 2530 Ridge Avenue, Evanston, Ill., has accepted graduates of foreign medical schools. It will continue to do so beginning with the 1959-1960 program, provided the foreign medical graduate has been certified by the Educational Council for Foreign Medical Graduates. Information regarding the national the address given above.

intern matching program can be obtained at

MANAGEMENT OF THE HANDICAPPED CHILD
edited by **H. Michal-Smith.** 276 pages. Illustrated. (1957) Grune & Stratton. $6.50.

Physical, mental, developmental, and behavioral handicaps of children are discussed by top men in their fields. A section on mentally gifted children and a listing of recommended readings for parents of the handicapped child will be helpful.

Stacey's Medical Books, San Francisco, California.

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FEDERAL GOVERNMENT ACTION RELATED TO MEDICAL PRACTICE

DEFENSE OFFICIALS DEFEND MEDICARE, BUT PROPOSE LIMITATIONS

THE MEDICARE situation is approaching a decision. The house passed the defense appropriations bill, but with the Medicare appropriation cut about $12 million to $60 million, and the defense department under orders to spend no more than that on civilian care. At the same time, house leaders agreed to give sympathetic consideration to any senate amendments that would remove dollar limitations on Medicare. According to defense officials, the bill's $60 million ceiling would result in "destruction" of the program. The decision now is up to the senate appropriations committee. Testifying before the committee were spokesmen for the defense department.

Defense Secretary McElroy told the defense subcommittee that the entire civilian phase of Medicare was put in jeopardy by limitations in the house bill, and that the department was prepared to restrict civilian medical care. Later, the subcommittee was informed that the following restrictions were under consideration:

1. Commanders to require dependents living on reservations or in nearby government military housing to use military medical facilities, when the facilities had space and staff available. 2. Certain types of medical care to be disallowed in civilian facilities; it is understood that the department proposes to tighten up on elective surgery. 3. If 2 and 2 are inadequate, the department would recommend legislation to require dependents to pay more toward the cost of medical care in civilian facilities (now first $25), "thus influencing more of them to chose uniformed medical facilities."

REORGANIZATION PLAN FOR CIVIL DEFENSE AT ISSUE

A senate government operations subcommittee may decide on whether to recommend to the full committee that the administration's reorganization plan for the federal civil defense administration and the office of defense mobilization be disapproved. If either house or senate votes disapproval, the proposed merger into the office of defense and civilian mobilization would not come off.

If sentiment of some subcommittee members is any criterion, the proposed merger may be defeated. Senator Humphrey (D., Minn.), chairman of the subcommittee, expressed concern that civil defense would lose its identity. Senator Potter (R., Mich.), author of a disapproving resolution, said he had grave reservations about placing a new operating agency directly under the President in the face of his present "tremendous responsibilities." Senator Thurmond (D., S. C.) said he was disappointed because no economies in money or personnel were promised.

Administration witnesses defended the proposal as eliminating duplications and resulting in far greater effectiveness in dealing with the intertwined jobs of planning for civil defense and mobilization preparedness. FCDA Administrator Hoegh, in testifying in favor of the reorganization, also called for senate action on the bill, HR 7576, which passed the house last session and which establishes civil defense as a joint responsibility of federal, state and local governments. ODM Director Gordon Gray commented: "In my opinion, the federal governments cannot afford to continue to have two sets of co-ordinating agencies concerned with preparedness for nuclear attack. The current situation has created confusion among the federal departments and agencies. If allowed to continue, it will create even greater confusion among the states and federal agencis. . ."

IRS RULINGS OF INTEREST TO THE PROFESSION

The internal revenue service has ruled that physicians on a full-time staff basis with hospitals do not have to include in their gross income those checks they receive from patients and which are immediately endorsed over to the hospital. Comments IRS: "He is an agent for the hospital, merely acting as a conduit for the fees collected." Doctors are expected, however to list when filing their returns, the sources of the fees, the amounts received and disposition made. In another ruling, IRS holds that expenses paid for special aids to assist in the education of a child progressively becoming blind are deductible as expenses paid for medical care. Listed were such things as tape recorder, special typewriter, projection lamp for enlargements and special lenses.

MEDICARE RULING ON DRUGS FOR MATERNITY CASES

The office for dependents' medical care has

cancelled a regulation that permitted doctors to add to their statements the cost of drug items directly or indirectly furnished maternity patients. ODMC said the majority of state medical societies considered the policy objectionable, as did pharmacists. In addition, only a small percentage of dependents getting maternity care from civilian sources have benfited from this policy.

Physicians, after July 1, may continue to include the cost of drugs which they administer parenterally, provided such drugs are necessary and directly related to the condition for which authorized care and treatment are furnished. The doctor must also identify the nomenclature and quantity of the drug and set forth the cost to him on the claim form or attachment.

SOCIAL SECURITY RESERVE TO DROP; SYSTEM CALLED 'IN BALANCE'

Although in the next five years the social security system will pay out more in benefits than it takes in in taxes and interest, looked at long-range the system is "in approximate balance for all practical purposes." These are among the findings and conclusions in the annual report to congress of the old age and survivors insurance trust fund.

However, the disability trust fund, established as a separate account when the disability insurance law was passed in 1956, is expected to increase steadily until it reaches about $4 billion in 1962. Disability benefits are estimated at $175 million for the current fiscal year, $247 next year, and $317 the following year.

Some of the points in the OASI report:

1. Because benefits are increasing more than expected, the OASI trust fund is due to decline from about $22.6 billion to between $19 and $20 billion by 1962. However, the report says the dip in reserves may be attributed to "temporary factors which have virtually no bearing on the financial condition of the social security system over the long-term future."

2. The fund is expected to take an upward trend after scheduled tax increases go into effect in 1965, and to "continue to grow for many years thereafter."

3. In the opinion of the trustees, there is "ample time to make any adjustments which might be needed," in the light of further experience or future estimates. The trustees are Secretaries Anderson (treasury), Mitchell (labor), and Folsom (HEW). Social Security Commissioner Schottland is secretary of the board of trustees.

During the current fiscal year, ending June 30, OASI benefits are expected to rise to $7.8 billion, resulting in a $428 million drop in the trust fund, the first year's decline in the fund since it was set up in 1940. The next year's drop is estimated at $1.1 billion.

Three reasons are cited for the unexpected OASI expenditures:

First and most important, more benefit claims than anticipated were filed by persons brought under coverage in the last four years.

Second, more women than expected have elected to take a reduced benefit at age 62, rather than waiting until age 65 for the full benefit. (In the long run this will average out at no extra cost.)

Third, during the recession, some older workers find it more difficult to keep or find a job, so retire earlier than they had planned. The recession also reduces tax contributions.

ARMY TO USE NEW POLYVALENT FLU VACCINE

During next October, all active duty army personnel wil be vaccinated with a new polyvalent influenza vaccine that protects against Asian, swine, A, A-prime and B strains. Vaccine also will be administered to all army personnel who go on active duty up to Aug. 1, 1959, including those in training for 30 days or more. Overseas, military dependents and civilian employes of the services and their dependents also will be treated. Dosages will be a single cc injected subcutaneously for all over 13 years of age, and two subcutaneous doses of half a cc each at intervals of one week for those six through 12.

AEC SETS UP NATIONWIDE NETWORK TO PROTECT AGAINST ACCIDENTS

To offer the public the best protection possible in case of an accident involving radiation, the Atomic Energy Commission has set up a nationwide network of radiological personnel specially trained in safety techniques. The teams, made up of scientists, engineers and physicians, when called on will monitor radioactive materials and advise local officials and physicians on extent of the hazards and the proper steps to take to control them. The AEC announcement said:

"While highly unlikely, it is possible that an

accident involving a nuclear reactor or radioactive materials, either in use or in in shipment, could result in relcase of radioactivity in such manner and quantity as to be hazardous to the public. For example, an incident might result from the involvement in a traffic accident of a truck carrying radioactive materials. Although containers for radioactive materials in shipment are designed to withstand most accidents of this type, a rupture of the container could result in radioactive material escaping to the surrounding environment." If an accident occurs, local officials are urged to contact the nearest AEC office or military installation. AEC regional headquarters are located in New York City; Oak Ridge, Tenn.; Aiken, S.C.; Albuquerque, N.M.; Chicago; Idaho Falls, Idaho; Oakland, Calif.; and Richland, Wash.

NIH GRANTS FOR MAY EXCEED $2 MILLION

National Institutes of Health estimates that for May its research grants and fellowships amounted to $2,229,498. Over 75 per cent of the total went for support of 120 research projects concerned with major diseases and various basic problems in the medical and biological sciences. About 40 per cent of the research money is for projects in mental health. Grants were made to 77 institutions in 28 states, the District, Puerto Rico and three foreign countries. In this country, 77 institutions in 28 states benefited.

UNION MEDICAL PLAN PROBLEMS DISCUSSED AT HEALTH CONFERENCE

The United Mine Workers' welfare and retirement fund has announced that it is closing the door on free choice of physicians in its big hospital and medical care program. Dr. Warren F. Draper, fund medical director, told the National Conference on Labor Health Services that the fund ". . . will never return to free choice of physicians. In order to continue to provide its present liberal medical and hospital benefits, the trust fund will deal only with those physicians and hospitals which it considers necessary and essential . . . It is the right of all labor health services to control their own medical care programs and they must insist on this right if the cost of medical care for their people is to be kept within reasonable bounds."

On the second day of the conference, called by the American Labor Health Association, Dr. F. J. L. Blasingame, AMA general manager, declared in a statement that the AMA has tried repeatedly over a long period to establish harmonious relationships between doctors and third parties which would result in the highest quality of medical care. "As things stand today, there is no question but what the medical interests of the miner and his family have been subordinated to the financial interests of the fund," Dr. Blasingame said.

Horace Hansen, general counsel of Group Health Federation of America, advised the union medical administrators and others concerned with third-party medicine to keep "a little black book" on the facts of local medical societies and physicians for possible use in lawsuits later. Mr. Hansen maintained that labor and other lay groups have a legal right to buy medical care for their members and that doctors have the legal right to render them care "by any method of compensation which is mutually agreeable."

Dr. Ray E. Trussell of Columbia School of Public Health and Administrative Medicine said he had found that organized medicine can be "friendly and constructive" in working out provision of medical care. Most of the trouble, he added, centers around "a small group of doctors who do not agree with you, and with whom you don't agree."

Among the speakers and panel chairmen were Drs. George Baehr, Health Insurance Plan of Greater New York; Morris Brand, medical director, Sidney Hillmann Health Center of New York; Lester Breslow, California State Department of Public Health; Frederick Mott, Community Health Association of Detroit; Dean A. Clark, president, Group Health Federation of America; and Nelson Cruikshank, AFL-CIO; Wilbur Cohen, University of Michigan, and Michael M. Davis, writer.

MERGER OF ODM AND FCDA EFFECTIVE JULY 1

The administration's plan for merging the office of defense mobilization and federal civil defense administration on July 1 to the office of civilian and defense mobilization has passed its final hurdle. The senate government operations committee on June 16 decided not to recommend a disapproving resolution sponsored by Senator Potter (R., Mich.). Under the Reorganization Act, any reorganizing proposal of the president automatically goes into effect after 60 days of issuance of details unless either house or senate

adopted a disapproving resolution. The house government operations subcommittee which looked into the proposal did not object, but did raise some basic questions. It observed: "The plain facts of life also suggest that civil defense is in so low a state that nothing could make it worse and something could make it better."

MAJOR INCREASES IN MEDICAL SPENDING PROPOSED BY SENATE COMMITTEE

The senate appropriations committee took a broad look at U.S. spending in the medical and health fields and decided that the present rate wasn't high enough. Accordingly, the overall HEW budget for the next fiscal year would be increased by 10 per cent (to $2,796,000,000) over what the house voted earlier this session. Some individual items were hiked nearly 100 per cent over the house figures, and in at least two instances, the committee proposed new spending in areas not touched by the house.

The two areas are $6,950,000 for the long-awaited new home for the National Library of Medicine to be built at Bethesda, and $9,625,000 for a general office building for the National Institutes of Health.

Hill-Burton program would get a whopping $211,200,000, enough for 31,800 beds in hospitals, nursing homes and chronic disease facilities and for diagnostic and treatment centers and rehabilitation facilities. The house voted $121,-200,000.

The National Institutes of Health would benefit by some $100 million more than voted by the house, or an increase of over 45 per cent. Each of the seven institutes would receive added funds. In addition, the committee proposed that the house ceiling of 15 per cent for allowable overhead costs for any one research grant be stricken. It also recommended nearly 100 per cent increase in general research funds, including more research in the basic sciences.

Training grant funds would rise, too, if the committee proposals are followed by the senate. For public health worker training, it set a total of $5 million, an increase of $2.8 million, and for graduate nurse training, the total would be $7 million, an increase of $4 million. For Indian health activities, PHS would receive an additional $4,775,000 for a total of $45 million.

AMA ON VA SERVICE-CONNECTED PRESUMPTION

The American Medical Association has informed the house veterans' affairs committee that it remains opposed to the determination of service-connection of diseases and disabilities by legislative enactment. Such a question can only be answered on the basis of the facts of the individual case, Dr. F. J. L. Blasingame, AMA general manager, informed the group in a letter June 18. "There are many factors which must be determined and weighed on the basis of the actual case history of the individual before service-connection can be accurately determined," he stated.

The only true mission of VA, he added, is to provide medical care for veterans with service-connected ills, but he said as long as non-service-connected cases are legally eligible, every effort should be to see that service-connected cases are not relegated to the background of the VA hospital picture despite a drop-off of such cases to 15 per cent of all admissions. Organizations appearing in support of one or more of a wide range of bills in this area included the American Legion, the Disabled American Veterans, and the Amvets.

AMA OPPOSES FORAND BILL AT HOUSE HEARINGS AS UNNECESSARY, RISKY

Testifying before the house ways and means committee, two witnesses for the American Medical Association opposed the Forand hospitalization-surgical care amendment to the social security program as unnecessary, of unpredictable cost, and as pointing the way to a complete program of socialized medicine. Witnesses were Drs. Leonard Larson, an AMA trustee, and Frank Krusen of the Mayo Clinic.

"Today you have before you proposals which would . . . mean a federally financed and federally controlled system of medical-hospital care, first for social security beneficiaries, subsequently for other groups and ultimately for everyone," Dr. Larson said. He explained that the medical profession is "acutely aware" of existence of medical care problems among the aged, and added: "We do not agree, however, with the advocates of the pending legislation as to the nature and extent of the problems, or as to the means of solving them. We feel, as do many others, that traditional voluntary private methods can eliminate deficiencies and at the same time preserve individual and community freedom."

Dr. Larson then described in some detail new operative proccdures, development of antibiotics, and other medical advances, private enterprise accomplishments that are "evidence that federal intervention is not required." Regarding medical progress and the increasing number of aged, he said, "Thus wc in medicine have helped to create not only the problem of the aged, we have helped to create the aged. We have done it under the free choice system. We can solve the problems in the same way." One of the most encouraging developments, Dr. Larson said, was the remarkable growth of voluntary health insurance among the aged, an indication that still greater protection will be provided in the future without federal action.

Dr. Krusen made it clear that the AMA has not and is not now opposing social security, but that it has and is opposing such proposals as the Forand bill, which "represent in our opinion a major and dangerous deviation from the original concept of the system." Dr. Krusen then made these points, among others:

1. The aged, for the most part, do not need short stays in general hospitals but rather improved home and community care, "as well as less costly and improved chronic illness and nursing home facilities."

2. The AMA on its own and through the joint commission to improve the health care of the aged is attacking the problems of furnishing medical care to the aged, and is supporting legislation for federal mortgage guarantees for proprietary and other hospital and nursing homes to reduce costs.

3. Under the Forand bill, the government would (a) finance health care of millions through compulsory taxes, (b) control the funds, (c) set benefits and rates of compensation, (d) establish and enforce hospital and medical care standards.

4. Patient and physician alike would have to submit to federal regulations, and patients would not have free choice of physician.

5. Medical efforts alone will not solve the problems of the aged; many other segments of our society will have to contribute, as many of their ills are the direct result of the inferior role in which this group has been placed. He added: "We, as physicians, are going to find out what the aged really need; what new improvements are succeeding in giving them better health care, and how such procedures can be universally applied."

AMA ASKS CONGRESS TO RETAIN TOP MEDICAL POST IN DEFENSE

The American Medical Association is appealing to congress to reject a defense department reorganization plan that would down-grade the post of assistant secretary (health and medical) to that of assistant to the secretary. The assistant secretary position, strongly supported by the AMA and other professional associations, was established when the department was reorganized in 1953.

Dr. Richard L. Meiling, who was medical assistant to the secretary from 1949-51 (before that post was elevated to assistant secretary), was the AMA witness before the senate armed services committee on June 26. Dr. Meiling is chairman of the association's military medical affairs committee and a member of the council on national defense. A reorganization bill that would eliminate the assistant secretary for medical affairs already has passed the house.

Dr. Meiling pointed out that for over a century the AMA has "demonstrated an interest in assuring that the best available medical services are provided for our armed forces in time of war and peace." He reviewed recommendations of the Hoover commission and the Rockefeller committee for strengthening the top civilian medical position in the defense department, and cited progress made since 1949 in improving military medicine and promoting greater efficiency. He declared:

"These past nine years of experience have clearly demonstrated the need and effectiveness of the assistant secretary of defense (health and medical) in the formulation of military medical policy and programs throughout all echelons of the department of defense. At the same time, the incumbent of this position has commanded the respect of his opposite numbers in the highest circles in our own government, foreign governments, and in the professional and scientific organizations. It is the considered opinion of the American Medical Association that to abolish or downgrade the position of the assistant secretary of defense (health and medical) would have a most deleterious effect at all echelons within the defense organization upon the medical and health services of our armed forces and upon the morale of military personnel."

DEFENSE, MEDICARE OFFICIALS DEFEND PROGRAM

Officials of the defense department and Medicare itself have urged congress to retain the civilian phase of the program and with sufficient appropriations. At the same time, the military spokesmen promised to put into effect limited restrictions on the free choice of physician and hospital. Testimony before the defense subcommittee of the senate committee on appropriations was given by Dr. Frank B. Berry, assistant defense secretary for health and medical affairs, and Maj. Gen. Paul I. Robinson, executive director for Medicare. They asked the committee to lift house-imposed restrictions that would forbid use of more than $60 million for the civilian phase of Medicare. They pointed out that this restriction would virtually demolish Medicare.

Instead, the military spokesmen proposed three ways of increasing use of military facilities by dependents, (a) commanders to require those on reservations or nearby government-sponsored housing to use available military facilities, (b) elimination of certain types of medical care now authorized in civilian facilities, to encourage use of military, and (c) possibly increasing the monetary liabilities of dependents in civilian facilities, also designed to turn dependents to military hospitals.

SCORES OF LIBERALIZATIONS IN SOCIAL SECURITY PROGRAM

The house ways and means committee is about to close hearings on social security, after listening to two weeks of concentrated testimony from witnesses who proposed liberalizations in every phase of the program. Comments of Chairman Wilbur Mills (D., Ark.) and committee members suggest the legislation to be reported out later will be limited to a few subjects. Most prominently mentioned are increases in public assistance and OASI monthly payments, an increase of $600 on the ceiling of taxable income, and improvement of some of the public assistance rules. The Forand bill for hospital-nursing home care of beneficiaries continues to be a controversial subject, but there are no solid indications as to how the committee will act on it.

In comprehensive testimony that reviewed all problems in connection with medical care for the aged, the American Hospital Association opposed passage of the Forand bill "at this time," and instead proposed that an advisory council be appointed to look into the matter and report back to the ways and means committee by Jan. 1, 1960. The council would be composed of hospital and medical leaders and the general public.

Among other things, the AHA would have the council make "a careful appraisal of the ways in which government might participate, and of the dangers which we think are inherent in governmental financing of hospital care for the aged, and an examination of ways in which, under OASI or any other approach, those dangers might be avoided or minimized."

Describing studies AHA has made in this field, the testimony concluded that "we have not seen the likelihood of a sufficient solution without the financial participation of the federal government. We believe a great deal more thought and careful study must be given to the form and extent of the federal government's participation." AHA's witnesses were Dr. James P. Dixon, chairman of the AHA committee to study health needs of the aged, and Ray Amberg, president-elect of the association.

The insurance industry opposed extension of benefits, and particularly the Forand bill. The latter, witnesses said, would not alleviate the only real problem and would mean a heavy and unnecessary tax; besides, voluntary health insurance is rapidly solving the financial problems. Rep. Aime J. Forand (D., R.I.) sharply challenged the insurance spokesmen.

Dr. Donald Stubbs, for Blue Shield, said it has been repeatedly demonstrated that we cannot retreat from a compulsory program once it is established, and for this, among other reasons, opposed Forand. Other critics of the Forand bill included the U.S. Chamber of Commerce, the National Association of Retail Druggists and the National Association of Manufacturers. Msgr. John O'Grady, National Conference of Catholic Charities, also opposed the bill, because, for one thing, it ignores the fact there are "strong family ties" that are helping to insure social care for the aged. Nelson Cruikshank, head of the AFL-CIO's department of social security, was prominent among witnesses urging adoption of the Forand idea. Among other arguments, he pointed out that it would relieve Blue Cross and Blue Shield of the added costs of protecting the aged, and put the Blues in a better position to compete with commercial insurance companies. Rep. James Roosevelt described the Forand bill as vitally necessary. Americans for Democratic Action and representatives of several unions testified for it.

I. WHAT MUST WE DO TO BE SAVED?

THERE IS INCREASING awareness the country over that the Forand bill confronts medicine with some problems that are as dangerous as they are delicate.

Speaking at a national Blue Shield conference lately, Dr. Howard N. Simpson of Springfield, Mass., said. "A very serious problem exists to find ways of financing the medical care of older citizens. It is a matter that has been developing rapidly for years, yet organized medicine waits for a politician to grab the ball and looks horrified when he starts to run with it . . . If what we believe in is to survive, it will not do so simply because we are high-minded, and wish it to survive. Nor will it do so because we give it lip service, or our daily blessing . . . We must discard old plans . . . and adopt new tactics and new weapons . . . "

In a similar vein, referring specifically to medicine's responsibility for Blue Shield and its opportunity to utilize Blue Shield for greater service to the public, another Massachusetts colleague, Dr. Charles H. Bradford of Boston, wrote recently: "We must stop focusing our thoughts childishly on income levels and fee schedules; we must stop bickering and yammering. We must grasp the larger significance of the splendid organization that we have built up in the last 20 years . . . "

Ten years ago, when the Fair Deal put on a drive to enact a plan for national compulsory health insurance, the existence of Blue Shield, even though only in a late gestative state, was a crucial factor in persuading the people to reject socialized medicine.

Casting about for some constructive alternative to governmental action in this area, some doctors have been heard to ask: "What is Blue Shield going to do to meet the challenge of the Forand bill?" To which Blue Shield's answer is: "What does medicine want us to do? What is medicine willing to do — through Blue Shield — to meet this very acute and special need? Blue Shield stands ready to serve you, doctor, to act at your command . . . But the flight plan or the marching orders must come from you."

II. CONSTRUCTIVE

DR. CHARLES H. BRADFORD, a Boston physician, is convinced that the development of Blue Shield by doctors represents "one of the few constructive, forward steps taken by the medical profession in the last 20 years." Dr. Bradford advanced this view in a letter to the editor of the New England Journal of Medicine, and went on to express his views on Blue Shield with a degree of insight and perception which is rarely encountered. The content of Dr. Bradford's letter is of such importance and interest that its essential points merit careful consideration by both physicians and Blue Shield administrators everywhere.

In his letter, Dr. Bradford poses three questions fundamental to what he describes as a long range view of the importance of Blue Shield to the profession and its implications to the current socio-economic factors involved in medical practice. These questions are: "What position does the medical profession as a whole occupy in the changing social, economic and political patterns of today? What part does Blue Shield play in these patterns? How effective is this part likely to be in the future?"

In discussing the first of these questions, Dr. Bradford suggests that the present position of the profession is precarious. "On one side," he writes, "we find ourselves threatened by state and federal programs already operating on a large scale and eagerly seeking still another enlargement. On the other side, we contemplate the ugly possibility of domination by pressure groups such as labor unions or dictation from commercial interests . . . to mention only two out of many contenders.

"In front of us we face the inescapable and insurmountable wall of rising costs, in which doctors' fees play only an insignificant part as compared to the staggering costs of hospitalization. Behind us we hear the hue and cry of an increasingly hostile public opinion, unleashed and led on by demagogues who clamor for the priceless gifts of life and health at bargain rates and at the taxpayers' expense. As we fare forth into this dark and uncertain forest of 'social progress,' we can expect about as much security as Little Riding Hood enjoyed when she went to visit Grandma!"

Dr. Bradford points out that in the face of these conditions, Blue Shield may well "represent one of medicine's few hopes for survival as a self-determining profession." In support of this view, he emphasizes that Blue Shield has

provided the profession with "an intelligently co-ordinated and professionally controlled corporate body" through which the profession and public may deal effectively in their common interest and to their mutual benefit. Dr. Bradford continues by suggesting that if the profession continues "to administer Blue Shield wisely" it may be all that doctors need to maintain their "professional independence."

What does Dr. Bradford conceive as the elements of a wise administration of its own Blue Shield Plans? "To administer it wisely," Dr. Bradford writes, "we must be willing to give as well as to receive — to regulate our practice and our fees so as to preserve our freedom from being regulated, and to grant the public as many benefits as we hope to assure for ourselves."

STRATEGY IS EVERYBODY'S BUSINESS

Remarks by Frank Rockwell Barnett,
Director of Research, The Richardson Foundation, Inc.,*
at the annual meeting of the
Conference of Presidents and Other Officers of State Medical Associations,
San Francisco, Calif. — June 22, 1958

IT IS ALWAYS a genuine pleasure for a research professor to be unchained — temporarily— from his shelf in the ivory tower and afforded the chance to inflict his *theories* on a whole roomful of practical-minded men of affairs. I hope to prove, however, that one of the *most practical,* down-to-earth assignments for the American doctor today is to become a serious student of public affairs — including politics, economic philosophy, foreign policy, national defense strategy and the educational theory that molds your children — and through them — the will and character of this nation in the time of trouble that lies before us. For the next two decades may decide the fate of man for the next 500 years, or forever.

Doctors are often very stern when they prescribe for patients who refuse to take warning signs seriously. May I, as a layman, turn the tables and be somewhat stern with this distinguished body? The "patient" in this case is the body politic: a free society which encourages individual initiative in business, law, medicine and engineering. The diagnosis for that civilization is cancer in the intestines and paralysis of the will. The prognosis is an untimely end for a patient too soft to endure surgery, too undisciplined to take medicine, too purposeless to survive. It will involve intellectual therapy and moral hygiene; or, in old-fashioned terms, homework and willpower.

I hope to demonstrate that it is important for doctors to think about political muscle tone, ideological x-rays, and preventive education. I hope also to indicate that — unless at least one man out of every three in this room commits himself to an active role in public affairs — then it is unlikely that your profession will survive its competition. By "competition," I do not mean the friendly race between Blue Cross and other insurance programs. There is a new kind of "competition" abroad in the world today. This form of COMPETITION, spelled in "allcaps," is designed to destroy — utterly and for all time— the moral, legal and political framework of the civilization which undergirds our voluntary society. If Genghis Khan & Co. win this competitive struggle, there will be no second chance for freedom.

The American voluntary society faces two mighty competitors — world communism and international socialism. Some students would argue that communism and socialism are twin engines in the same juggernaut. But perhaps there are useful distinctions. The threat of communism is largely external, military, scientific, political, and economic. It is an *immediate* threat. Its weapons are violence, subversion, propaganda and blackmail. The danger of socialism is largely internal and long-range. Its weapons are education, persuasion and the ballot-box.

Many Socialists are firmly opposed to the force and terror of communism. Socialists — unlike hard core, fanatical Communists — are sometimes open to counter-persuasion from men sufficiently articulate to debate issues with them. Socialists have been voted out of power in England and Australia — but when Communists have been threatened by the will of the people, they have, as in Hungary, sent in armored divisions to crush the opposition to lifeless pulp.

Although I do not in any way agree with Socialist economic theory, it is only fair to admit that many Socialists — as human beings — are

*The opinions herein expressed do not necessarily represent those of the Richardson Foundation, Inc.

honorable, decent and even idealistic people who want to achieve good things for humanity. They are not professional revolutionaries or conspirators like the Communists. Indeed, some Socialists are so idealistic they cannot comprehend how ruthless and cynical Communists can be. When Communists come to power, socialistic intellectuals are often the first to be purged. In Czechoslovakia, for example, a Socialist leader named Masaryk tried to walk a "middle course" between communism and Western democracy. He ended up, still in the middle-of-the-road all right — but from nine stories up where someone had pushed him out of the window.

Although they use different means, both communism and socialism confront America with a mortal challenge — and we are in danger of being caught between hammer and anvil. The external threat is ubiquitous and terribly real; yet free men hesitate to oppose the Communist enemy on all fronts for fear we may gradually surrender our own civil liberties, economic freedoms and political liberties to Big Government here at home.

Is there any way out of the dilemma? One remedy is to apply the American genius for voluntary action to the realm of public affairs. But this requires that the managers and professional leaders of our society must make public affairs their avocation — their full-time hobby. They dare not hold aloof from political life and from hard intellectual effort. They will have to do their "homework" in philosophy and history. And they must not wait for another Pearl Harbor or giant depression to move them to prudent action.

Pearl Harbor proves a point — because Pearl Harbor was an event that permanently changed the lives, fortunes and future of every man in this room. Beyond that, Pearl Harbor radically revised American axioms about world geography and power politics. In a handful of minutes, Japanese dive-bombers not only sank our Pacific fleet; they also torpedoed unreal assumptions about the technical capacity of "foreigners" and the use of trade or good will as effective means of deterring aggression.

We had thought that East was East and West was West. We learned the hard way that 20th century America is cheek by jowl with the Orient, that the Burma Road intersects with Main Street, that Tokyo and Berlin — and now Moscow and Peiping — are closer to Chicago than Philadelphia was to Boston at the time of the American Revolution.

These lessons were derived from the bombing of Dec. 7, 1941. But on Dec. 6, 1941, America was already at war, even though we didn't know it; for while it takes two to keep the peace, it takes only one to make a war. So, as America slept, the carriers of imperial Japan were converging on Hawaii. The bombs had been loaded, the pilots briefed, the mission assigned, the die cast for our people by war lords on the far side of the earth. We learned that war starts — not at the moment of the surprise attack — but when the enemy completes *his* final plans and commits *his* resources to conflict.

Again we are at war — a new kind of war with unorthodox rules and camouflaged weapons. Our failure to recognize that fact does not affect the designs of the Kremlin. Again, it is an enemy — not ourselves — who has decided to involve the United States in conflict. Again, our own good intentions are beside the point. And, again, there is danger our country may drowse through the afternoon of its Dec. 6, through a night of no return, into another kind of Pearl Harbor—where the hour and the place, and the cost and the sacrifice are all determined by factors outside our control.

Only this time, the odds are much heavier against America than on that other Dec. 6, 16 years ago. What if, in 1941, the power of Japan had already swallowed two-fifths of the earth? What if Japanese science had in some respects surpassed our own? What if Tokyo had dominated a billion people whose labor could be coerced to the cause of conquest? What if her fifth columns had penetrated every country in the world, including the United States? What if Japan had had vast natural resources, abundant water power, access to oil, no need to import steel or coal? And what if Japanese submarines and bombers, armed with atomic weapons, had been based as close as Alaska, Mexico, Canada, Catalina, Nantucket, Key West and Bermuda? The equivalent of this nightmare supposition has come to pass since 1945, with the Soviet conquest of space and the invention of guided missiles — with the manpower of China and the resources of Eastern Europe feeding the Communist war machine — and with India, the wealth of Indonesia and the oil-rich Middle East only three assassinations and a few street fights re-

moved from the grasp of the Kremlin.

In short, an Asiatic conqueror stands on our frontier. Owing to science, the Atlantic Ocean is no wider than the Rio Grande. Owing to technology, the Pacific is no broader than Lake Michigan; and the wastelands of the North can be bridged in a few hours' flight. We Americans are face to face with the descendants of Genghis Khan.

Indeed, television brings Mr. Khrushchev into millions of American living rooms to lecture on the glories and inevitable triumphs of world socialism. When a Soviet leader denounces Wall Street monopolies, his message is transmitted free of charge on the front pages of American newspapers and contributes to the general climate of opinion in this country.

His Armies Practice "Conquest by Communication"

Khrushchev & Co. are no longer a rude barbarian horde. They are disciplined in science and well-armed with engineering. They are schooled in economics and political theory. They speak many languages. They have learned to use education, literature, art, trade and even religion as weapons of subversion. Above all, they are superbly trained in the conduct of symbol-warfare — in *conquest by communication* and *warfare by words.*

The Military Cannot Defend America Against Symbol-Warfare

That is why we must talk about management's responsibility for public affairs and national security. In the past, wars were chiefly shooting matches, and business men naturally left defense problems in the hands of America's soldiers. Today, the front is everywhere. Certain intangibles can literally "wash out" the material foundations of defense. If the world climate of opinion is mobilized against us by propaganda, we will lose markets, air bases and access to strategic raw materials. If, here at home, we lose the will to sacrifice or cynically disregard our spiritual traditions, our physical wealth will not safeguard American civilization. Today, national defense begins at the level of domestic political morality, the quality of citizenship training for our youth, and the reputation of American business growth both here and abroad. These "intangibles" are the clear responsibility of private citizens.

We Are Faced with the Problem of National Survival

Ancient Carthage, with its luxury standard of living, refused to make minimum sacrifices to support Hannibal and did not survive. Cato's relentless chant — "Carthage must be destroyed" — did not awaken the indolent Africans from their preoccupation with business-as-usual. They couldn't believe that Cato, like Khrushchev, meant what he threatened. Similarly, Rome itself, entertained with bread-and-circuses and arrogant in its splendor, did not *survive* the onslaught of the Vandals and Visigoths. The technical skill that built her roads and aqueducts, the "know-how" of her administrators, the glory of her law — none of these assets saved an effete and over-civilized Rome.

Nor did Rome's gross national product protect her. The Visigoths had none whatsoever — only weapons and will power. These dismal comments on Carthage and Rome could be repeated for other proud civilizations. Many times in the past, nations with high standards of living have been pushed to the grave by nations with low standards of dying.

History teaches us that when a people put indulgence before discipline, worship welfare and discourage risk-taking, they are likely soon to be forced into bankruptcy by a more vital competition. Especially if they no longer believe in themselves. For nearly 25 years this country has been confused by a cult of doubt. Too many Americans suffer an odd guilt complex about their own way of life. Meanwhile the missionaries and conquistadors of the Communist church militant advance Marxism as the one true faith — and they are willing to dic for their belief. That is why the battles of the cold war are fought on our side of the Iron Curtain and at the Kremlin's initiative. That is why trying to contain communism with a Maginot line of dollars and diplomacy is bound to fail. We forget that no *status quo* power has ever checked the thrust of a dynamic barbarian — for even if the "defense" is 90 per cent successful on every occasion, a civilization can be driven to its doom 10 yards at a time.

The Soviets Have Made Startling Technical Gains

In 1945, America enjoyed absolute air-atomic supremacy. In less than a decade, Russia has broken our monoply in nuclear weapons, beaten

us into space, produced jet aircraft and tested guided missiles. A system once contemptuously called the "ox-cart economy" has built the world's second largest navy, graduates more than twice as many engineers as America, and, by ruthlessly disregarding the claims of its consumers, is out-producing us in heavy machine tools, the basic equipment of war.

The Real Threat: Soviet Fourth Dimensional Warfare

But the greatest threat to our civilization may not stem from Soviet guided missiles or engineering of atomic weapons. We have brilliant scientists, able generals and inventive industrialists who doubtless can safeguard national security on the technological front. It is in the realm of "fourth dimensional warfare" — or psycho-social combat — that we are hopelessly outclassed. We know a lot about the tricks and techniques of mass persuasion — but we have not yet applied that knowledge to the main challenge of our time — how to beat communism without fighting a hot war.

We use advertising skills and the "hidden persuaders" to change consumer taste in salad dressing. We use high-powered public relations to boost the box-office appeal of a rock-and-roll cowboy. The Soviets exploit Pavlov, propaganda and group dynamics to overthrow empires and condition the masses to become addicts of socialism. They use psychology to win the world.

Propaganda has always been a tool of the conqueror. In the age of radio, television and mass literacy, however, political warfare has become a *primary* weapon. The Communists, like the Nazis before them, use the strategy of terror to frighten the West into inaction, to promote class warfare and thus divide and conquer, to encourage neutrals to ride the Soviet wave of the future. The danger of the Russian sputnik is not just that it means Moscow can probably put a missile on New York or, in the near future, aim atomic guns at Pittsburgh and Detroit from a platform in outer space. Sputnik is a symbol of successful socialism. All over the world, intellectuals and politicians — already half in love with Marx — are saying: "If socialism can do such wonderful things in science, why not give it another chance with business? If communism is efficient in the laboratory, let's try it in our factories. If Marxism can plan a sputnik and build so many splendid schools of engineering, we must have social planning and social engineering for every part of our society. Capitalism is obsolete."

Despite the record of American enterprise, millions of people — including some in this country — will believe that propaganda. Why? Because very few Americans can articulate what it is we really stand for. We perform, but performance is not enough in an age of mass media. The Communists capture the slogans, manipulate the symbols, pervert the communications. The *facts* are on our side; but facts don't necessarily move men to action. More often, men are motivated by theories, by hopes and hatreds, by envy, fear or inspiration. The Communists have done their homework in the human subconscious. From superstitions and buried emotions and bedrock beliefs, they have mixed the weapons of fourth dimensional warfare.

They have put this knowledge to practical use. With blackmail and infiltration, they captured Czechoslovakia without firing a shot. That means they got the Skoda works intact. For 30 years Moscow trained many oriental Communists in its academies of political warfare. The alumni are today the rulers of Red China, the overlords of North Korea, the leaders of the Communist thrust into Southeast Asia. No Russian soldiers died to score these victories. In recent months, communism has won elections in India, Indonesia and South America. It has penetrated Syria and Egypt. It is growing like a weed in the fertile fields of Africa. It controls powerful party machines in France and Italy. Communist political strategy, in short, is not an ivory tower experiment. It pays Moscow huge dividends in real estate, military bases, raw materials, manpower — and continuous trouble for the United States.

These things don't happen by accident. Communism is not just an idea; it is a power-technique. Behind the Iron Curtain, there are more than 100 schools and colleges of propaganda and subversion. Many Russians get a first-class education in math, physics and foreign languages. But other Russians — and selected recruits from Asia, Africa and Latin America — receive professional training in conflict management and psychological tactics. We have the Harvard School of Business; they have the Lenin Institute of Political Warfare — for politics is the chief business of communism.

It is imperative, of course, for this nation to win the contest of science, electronics and military hardware. Otherwise, the Soviets will blackmail us into surrender. But we cannot guarantee our security by simply catching up or staying ahead in science. After all, we were ahead of them for 35 years when, in spite of our technological superiority, they scored victories by irregular methods. We must create a shield of science to ward off a hot war; but we must also learn to make stronger moves on the ideological, political and economic squares of the cold war chessboard.

To do that, we must raise the standards and improve the quality of education in economics and philosophy, American history, political science and foreign languages—as well as in science and engineering. And we must not be afraid of competition in the classroom, for young America in the next two decades is going to face the most ruthless competition the world has ever known.

American business cannot afford to be a mere spectator at this match for the future of mankind. The "managers" of Soviet society are all committed to agitation and politics. They are conflict minded. You can't do business with Moscow, because Communists are not business men or statesmen. They are professional revolutionaries. Their foreign aid personnel are commandos; their artists are propagandists; their diplomats are spies; their economy is based on the cost accounting of the battlefield, where every resource is squandered in order to defeat the enemy. Since Communists have a combat mentality, you can't reason with them. If we don't want to fight them — or surrender — we must learn to beat them in the precincts of the Middle East, in the lobbies of the United Nations, in our own classrooms and pulpits, and before the court of world opinion. Our own managers dare not be aloof to this challenge.

The Communist Party, through the apparatus of *total* government, can mobilize the total resources of the Sino-Soviet empire. Our limited government, by definition, cannot and should not compete with Moscow across the board. If it did, Washington would have to regulate business, control the press, police our schools and regiment our voluntary agencies. This means that, unless private institutions take over many areas of non-military defense, the ubiquitous thrust of Communist conflict management will be unchecked at crucial points.

Why should business be asked to serve? Primarily, because our *economic* system is the crux of the whole struggle — and because, in a sense, this is the business society. Each year, a very high percentage of our college graduates are recruited by business. Although there are extremely able men in other walks of life, our greatest reservoirs of inventive talent, drive, organizational vitality and brainpower lie in the world of industry, commerce and finance. Yet with certain notable exceptions, business leadership has not taken full responsibility for safeguarding the moral, intellectual and political framework which ensures its opportunities to make the economic system pay off for all America.

Business Men Cannot Stand Aloof from Politics

This republic was founded, of course, by bankers and lawyers, business men and a general. The frontier was civilized by business leaders who took an active part in the *citizenship function*. Today, however, many business leaders regard politics as beneath their dignity. Unfortunately, American civilization can be crippled — and even destroyed — by concepts which lead first to changes in the "climate of opinion" and, ultimately, to the *hard facts* of power politics.

If the business society is destroyed outright — or simply withered by politics and propaganda— business leadership has only itself to blame. After all, every great corporation has more than enough surplus to allow some of its best brains to stop thinking about production and sales and start thinking about national defense, citizenship education, foreign policy and economic philosophy. One way for business to attack these complex problems systematically — and with sophistication — would be to build an academy of industrial statesmanship. This would be, in effect, the equivalent of the Harvard School of Advanced Management in the area of public affairs, national defense, citizenship training, and the "theology" of American-style capitalism. Its purpose would be to produce articulate champions of freedom who could compete with the lobbyists for Marx in the never-ending battle to condition the climate of opinion.

Another place to improve the machinery of ideological defense might be with the lever of corporate philanthropy. American business now gives to good causes more than $500 million a year. Perhaps 5 per cent of that total should be

used to pay a cultural life insurance premium on America, in the light of Khrushchev's boast that our grandchildren will live in a Soviet Socialist America. Recent events suggest at least three more questions about private philanthropy:

1. If the Soviet challenge is not to result in eventual federal control of our schools, must not business give even more generously to improve the quality of American education?

2. Cannot business get much more for its charitable dollar by applying the same professional standards to giving away money that it does to making it in the first place?

3. Should not industry begin to reappraise its pattern of giving — shifting some investments from the portfolio of community welfare to the portfolio of national survival, allocating priorities, evaluating results and, in general, managing corporate largesse with the same discrimination and purpose that mark other phases of business operations?

Goals for the Future: Vice Presidents of Public Affairs

Ultimately, it may be desirable — even necessary — for great corporations to appoint vice presidents of public affairs to spend full time on these matters. A waste of talent? At the beginning of the century, certain firms refused to adopt advertising. They perished. Now, most firms are hospitable to the subtler meanings of public relations. But beyond orthodox "public relations" lies the arena of public affairs in which the fate of American civilization may well be decided in the next decade.

The Ultimate Weapon

One word more. The ultimate weapon is neither science nor politics nor psychological warfare. The ultimate weapon is human courage — and faith in certain unalterable moral laws. Unfortunately, some people have forgotten the true meaning of America. We are already half afraid of the honorable word "revolution," although we are the true revolutionaries. It was an American revolution that gave the world its finest revolutionary ideal — the notion that government is the servant, not the master, of the people. The Communists — who call us "reactionary" — have turned society back to the days of the Pharaohs. The monuments to "Socialist progress" erected in the U.S.S.R. — like the pyramids of ancient Egypt — have been built with slave labor.

We Must not Perish Through Failure to Recruit our Elite

On the other hand, we Americans have developed the most flexible, continually progressing society known to man. Our so-called "masses" already enjoy luxuries undreamed of in other parts of the world. Our unique type of capitalism — almost as different from European cartel-capitalism as it is from socialism — produces more welfare and more social justice than Communist functionaries would even dare to imagine. But beyond that is the fact that we are truly free men. We have plenty *and* freedom, together. We must not let this remarkable experiment in human liberty and opportunity perish from want of courage, or lack of sophistication, or failure to meet the problem with the ablest human resources at our disposal. That is why these questions of national strategy and public affairs urgently require the attention of this audience.

It may be argued, of course, that the profession of medicine is a thing unto itself, that doctors have no business to "intervene" in the great affairs of state. The health of a democracy depends, however, to a large degree on the quality of its participating units. If doctors are to abdicate their responsibilities as citizens, why should not engineers and scientists, college professors and bankers take a similar view? In a sense, we are all professionals; and we are also all responsible for preserving our freedom. If we are to safeguard a society in which *political* ethics make possible *professional* ethics, we dare not leave the formation of public opinion to demagogues. American doctors who are "too busy" to engage in public affairs — or do their homework — may find, in the years to come, that they may have to spend full time in some dismal underground, as did their colleagues iln Nazi Germany or as men do today in Poland, Hungary and Czechoslovakia. Never before in history have the moral implications of the Hippocratic Oath been more urgently required, not alone for medicine, but for the whole free society.

The task may seem enormous; but the stakes are even higher. And let us remember that great events are always determined by minorities. Forty years ago, communism was confined to a rented room in Zurich, the brains of Lenin and the ambition of a few other outcasts. Less than 100 men made the American Revolution. For a time the whole future of this nation was carried in

the will and heart of a lonely man who walked the winter lines at Valley Forge persuading his ragged countrymen not to quit and go home. There is more than enough talent in this one room to change the course of history. But time is impartial. In politics and war, as in business, time is only on that side which knows how to use it.

RESOLUTION

Introduced by:
Samuel J. McClendon, M.D.
Delegate, California Medical Association

Subject: Voluntary Health Agencies

WHEREAS, the objectives of the principal voluntary health agencies are laudable; and

WHEREAS, these agencies havce a distinguished record of contributions to the health and medical care of the American people; and

WHEREAS, the House of Delegates in December 1957 expressed commendation of such agencies and adopted "Suggested Guides to Relationships Between Medical Societies and Voluntary Health Agencies"; and

WHEREAS, it is recognized that the continued effectiveness of these organizations in the fields of public education, professional education and research is dependent upon the retention of their independence and identity; now therefore be it

RESOLVED: That the House of Delegates reiterates its commendation and approval of the principal voluntary health agencies; and be it

FURTHER RESOLVED: That is the firm belief of the American Medical Association that these agencies should be free to conduct their own campaigns of fund raising and public education and to direct programs of research in their particular spheres of interest; and be it

FURTHER RESOLVED: That the House of Delegates respectfully request that the American Medical Research Foundation take no action which would endanger the constructive activities of the voluntary health agencies; and be it

FURTHER RESOLVED: That the board of trustees continue actively its study of these perplexing problems looking forward to their ultimate solution.



DR. BRUWER WINS PRIZE FOR AMA EXHIBIT

DR. ANDRE J. Bruwer of Tucson was awarded a gold medal for the prize-winning scientific exhibit at the American Medical Association, which recently met in San Francisco. The display showed X-ray films which suggested disease of the chest, which, however, actually were due to pathological conditions of the heart and associated major vessels.

SUGGESTED MEDICAL SOCIETY ACTIVITIES

TO PROMOTE UNDERSTANDING OF ALLIED HEALTH AGENCIES

THE COMMITTEE on the relationships between medicine and allied health agencies suggests the following activities as a means of promoting better understanding between medical societies and the many allied health agencies found in most communities. Wherever such activities have become an established part of a medical society's program, the mutual understanding engendered is of benefit to both the medical society and the agencies involved. Both are better able to promote the public's health. The committee, therefore, encourages all constituent and component medical societies to implement, through appropriate standing committees, these suggestions for improved relationships between the medical society and the health agencies in the community.

Become informed on the stated purpose, organizational pattern, and program of each health agency represented within the jurisdiction of the medical society.

Acquaint the medical society members with all information obtained so they may inform their friends and patients correctly.

Offer liaison thorugh appropriate medical society committees in order to strengthen the scientific programs of health agencies and insure their compliance with accepted medical opinion.

Offer the consultation of medical society members of appropriate specialty to the smaller and less well organized health agencies to insure a medically correct and an ethically acceptable program.

Encourage health agencies to select physicians for membership on their governing bodies from among medical society members in good standing, or from a panel of members submitted by the medical society as suggested nominees.

Help physicians serving health agencies to recognize their variation in role with variation in circumstance, particularly that only a physician appointed by a medical society can be the official representative of that society.

Existing relationships and local circumstances may suggest additional activities of a similar nature. It is, however, desirable that medical societies take the initiative in establishing mutual understanding between themselves and allied health agencies.

NATION'S OLDEST ESSAY CONTEST

The trustees of America's oldest medical essay competition, the Caleb Fiske Prize of the Rhode Island Medical Society, announce as the subject for this year's dissertation "*Bronchogenic Carcinoma — Predisposing Causes.*" The dissertation must be typewritten, double spaced, and should not exceed 10,000 words. A cash prize of $300 is offered. Essays must be submitted by Dec. 31, 1958.

For complete information regarding the regulations, write to the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis St., Providence 3, R. I.

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With a non-cancellable, guaranteed renewable policy such as HBA offers, the company cannot cancel the insured's protection. Only the policyholder has the right to cancel and the right to renew.

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Only a small percent of companies issuing hospitalization protection offer this safeguard . . . so when your patients ask your advice, mention it to them.

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QUIZ — HISTORY OF MEDICINE

THE FOLLOWING list of questions was used by Doctor John Green in his course teaching premedical students at Arizona State College because of the general interest and thought-provoking nature, as well as informative, character of the questions. It is felt that Arizona medical readers would be interested in taking the quiz, therefore, these questions are published on one page, and the answers given on the next page.

Your editor suggests that 40 per cent correct answers could be rated as fair, 70 per cent as good and 90 per cent as excellent.

HISTORY OF MEDICINE

Mid-Term Examination — Arizona State College at Tempe

1. A reconstruction of the unity of medical thought in its origins and its limits depends on an analysis of what three phases?

2. Medicine of primitive cultures was of four types. What are they?

3. Name the most ancient operation of which we have objective evidence.

4. Name two major contributions to medicine by the Babylonian civilization.

5. Why did ancient Egyptian medicine leave a greater impact on civilization than did Babylonian?

6. Name the two lasting tributes to early Hebrew culture.

7. What was the chief cause for the introduction of plastic surgical measures for repairing disfigured ears or noses in Hindu society of ancient times?

8. The origin of Chinese medicine is attributed to Emperor Shen Nung about 2700 BC. Name two of his contributions to medicine.

9. Who is generally regarded as the Father of Medicine?

10. Who was the outstanding physician of the Roman period? Why?

11. Islamic medicine provided an effective link between the Greeks and the Renaissance. Name the two physicians largely responsible for this.

12. When Constantinus Africanus accompanied the Norman invasion into Sicily and Italy in 1046 AD. he performed a remarkable function for European medicine. What was this function? In what two institutions in Italy did he do his work? Name the famous poem associated with the School of Salerno.

13. The most imperishable legacy left to us by the Middle Ages was the establishment of the?

14. Who was it in the University of Bologna that advocated closure of wounds to avoid suppuration (pus formation) and the use of the "soporific sponge" (anesthesia)?

15. The impact of the Plague (Black Death) upon history was immense. List two reasons for this.

16. How did the artists of the Renaissance period exceed the knowledge of the Greek artists in connection with their portrayal of the body?

17. De Humanis Corpora Fabrica is one of the landmarks of medicine, prepared by the outstanding anatomist of the Renaissance period. Who was he?

18. ....., the towering surgical figure of the Renaissance, described the use of ligature in amputations and criticized the prevailing use of cautery.

Answers on page 628.

According to an American Medical Association study, about one million patients a year are hospitalized for cardiac disease, 720,000 for fractures, and 585,000 for cancer. About eight million admissions a year — two-fifths of the total — are for surgery.

Annual admissions to hospitals for maternity care increased by almost five times from 1935 to 1955 — from 800,000 live births in hospitals to over 3.8 million. But since the average length of stay per confinement has declined (from 10.8 days in 1946 to 5.2 days in 1956) the impact of obstetrical changes on the total rise in hospital use has been relatively small.

Men require more hospital treatment than women, even though women's admission rates are much higher during the childbearing years.

Rural residents are admitted to hospitals more often than urban residents. But city dwellers, once admitted to hospitals, generally require a longer stay.

Within the last two decades the admission rate to general hospitals in this country more than doubled — from 59 per 1,000 population in 1935 to 129 per 1,000 in 1956. During the same period, however, the average length of stay per patient declined from 15.0 days per admission to 9.7 days.

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Prompt 4 way check of diarrhea

- Curbs excessive peristalsis
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Sulfaguanidine	2 Gm.
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DOSAGE: **Adults:** Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz.*
Exempt Narcotic. Available on Prescription Only.

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ANSWERS

MID-TERM EXAMINATION: HISTORY OF MEDICINE

1. (1) History of ideas, (2) History of facts, and (3) History of individuals.

2. (1) Instinctive, (2) Empirical, (3) Magical, and (4) Priestly.

3. Trephination of the skull.

4. (1) First to concern themselves with anatomy, and (2) first to codify the responsibility of the physician.

5. The monuments of that culture were better preserved.

6. (1) Monotheism, and (2) Social hygiene, including a Day of Rest.

7. Punishment for wrongdoing frequently took the form of physical mutilations. Cutting off the nose was the usual punishment for adultery.

8. (1) Compiled the first herbal — mentioning 100 remedies, and (2) introduced the technique of acupuncture.

9. Hippocrates primarily because he taught that disease was due to natural causes rather than supernatural causes.

10. Galen, because of his accurate anatomical and physiological research, his writings, teachings, which mark the culminating point in the ancient history of medicine. Unfortunately he was a dogmatist who followed the Aristotelian philosophy, submitting his valuable discoveries to vain philosophical speculation and his ideas dominated medicine until the Renaissance.

11. (1) Avicenna, and (2) Rhazes.

12. He transmitted Islamic medicine to the School of Salerno and the Benedictine Abbey at Monte Cassino, translating Arabic to Latin. Regimen Sanitatis.

13. Universities.

14. Theodoric.

15. (1) Economic upheaval with abolition of serfdom, labor shortage, increased wages, etc. (2) Important cause of Protestant and Catholic Reformations because of high mortality of the clergy and their partial replacement by poorly trained individuals.

16. They utilized dissection of the human body to know the interior as well as the exterior of their subjects.

17. Andreas Vesalius.

18. Ambroise Pare.

A PROFILE OF THE NEW AMA PRESIDENT

DR. GUNNAR Gundersen, 61-year-old surgeon from LaCrosse, Wis., was inaugurated Tuesday, June 24, as the 112th president of the American Medical Association.

He succeeds Dr. David B. Allman of Atlantic City.

As president, Dr. Gundersen will serve as spokesman for more than 170,000 physicians who are members of the AMA.

Dr. Gundersen, born in LaCrosse on April 6, 1897, began the private practice of medicine in 1922 as an associate of his father. He now operates the Gundersen Clinic in LaCrosse, along with three of his physician brothers. In memory of their father, the Gundersens established the Adolf Gundersen Medical Foundation in 1945.

Dr. Gunnar Gundersen did his prep school work in Oslo, Norway, and returned to the U.S. to obtain his B.S. degree at the University of Wisconsin in 1917, and his M.D. at Columbia University in 1920. He served his internship and residency at LaCrosse Lutheran Hospital from 1920 to 1922.

Like his father and his brothers, he has been active in state and national medical affairs throughout his practice. He was president of the State Medical Society of Wisconsin for the year 1941-42, served on a number of the society's committees, and was speaker of its house of delegates for about five years. He was a member of the AMA's house of delegates in 1937 and 1938, and was elected to the AMA's board of trustees in 1948, serving in various capacities ever since. He became chairman of the board in June 1955.

Dr. Gundersen's keen interest in hospital affairs and the quality of hospital service led to his election as the first chairman of the Joint Commission on Accreditation of Hospitals when it was formed in 1951. He served in that capacity until 1953.

He is past president and former member of the Wisconsin Board of Health (1943-52), and a former member of the State Board of Regents of the University of Wisconsin (1931-37).

Currently he is preceptor in charge of the medical students who come up from the University of Wisconsin to the Gundersen Clinic to augment their training by actual contact with patients and other physicians.

Dr. and Mrs. Gundersen have three children and eight grandchildren. The older son, Gunnar

Adolf, a graduate of Harvard Medical School and a certified radiologist, is now associated with the Gundersen Clinic. The younger son, Cameron B., was graduated from Boston University Medical School in 1956, recently completed his internship at Children's Hospital in San Francisco, and is presently serving as captain in the air force medical corps at McGuire Air Force Base, N.J. The Gundersens' daughter, Mary, lives with her lawyer husband in Oslo, Norway.

ROLE OF MODERN FAMILY DOCTOR

THE AVERAGE family doctor today is a well-established physician in his 40s who treats about 26 patients a day and spends more than eight hours a day on home and office calls, according to Health Information Foundation.

In its monthly statistical bulletin, *Progress in Health Services*, the foundation released preliminary findings from a survey made in co-operation with the University of Chicago's National Opinion Research Center.

The study was intended primarily to find out what the American pubilc thinks and does about health and health facilities. Interviews were conducted in the summer of 1955 with some 2,400 persons (representing a cross-section of the country's adult population) and with almost 500 physicians named by these persons as their family doctors.

"The persons interviewed are representative of those to whom the U.S. public first turns for medical care or advice," the foundation said. About three-fourths of the family doctors surveyed by the NORC were general practitioners, and almost all of them were in private practice. (By contrast, less than half of the total medical profession classifies itself as general practitioners, and about three-fourths of the profession is in private practice.)

These major survey findings were brought out in the foundation report:

Most of the physicians in the sample were relatively young men. The largest group (over one-third) were in their 40s, and doctors under 40 constituted an additional quarter of the total.

The average doctor interviewed spent about six hours a day on office calls and another two hours on house calls. Only one doctor in every 14 made no house calls, and four out of five physicians were generally available for night and Sunday emergency calls.

About seven out of every eight family doctors were affiliated with one or more hospitals, and more than half of all physicians performed some free work in hospitals.

Commenting on the survey, George Bugbee, foundation president, pointed out that four out of five persons interviewed by the NORC said they had a family physician to whom they turned regularly when they were sick. Most patients, furthermore, "reported a very good opinion of the abilities of their family physicians, reflecting a confidence that is certainly related to success in patient care."

"Clearly," Mr. Bugbee continued, "the personal character of the relationship between patient and family physician has not given way to impersonal arrangements for physician services . . . Good medical care will always depend on how early during illness a physician is consulted and how readily his advice is accepted by those who ask for it. The public has unerringly perceived these basic facts. Otherwise people would not ask, as they do, that a family physician be the first called to home or hospital in time of stress or whenever advice is needed for the maintenance of good health."

During the last two decades, the proportion of the American population admitted to hospitals has more than doubled. But the average length of stay per person has declined by almost half — from 41.1 days per person in 1935, to 22.4 days in 1956.

Not only do psychiatric hospitals account for more than half of all patient-days, but many beds in other types of hospitals are reserved for psychiatric patients.

CURRENT THERAPY 1958: Latest Approved Methods of Treatment for the Practicing Physician

edited by **Howard F. Conn, M.D.** 827 pages. (1958) Saunders. $12.

Current Therapy 1958 gives you modern effective treatment for nearly 2100 common diseases. No less than 227 articles and treatments either are new or have major changes since last year. This is for your office desk not your library.

Stacey's Medical Books, San Francisco, California.

BOARD OF MEDICAL EXAMINERS

STATE OF ARIZONA
826 Security Building
Phoenix, Ariz.

The Board of Medical Examiners of the State of Arizona at a regular meeting held Saturday, April 19, 1958, issued certificates to practice medicine and surgery in this state to the following doctors of medicine:

Beal, Charles B. (GP) — 2741 N. 27th St., Phoenix, Ariz.
Bernstein, Louis (Oph) — UCLA Med. Ctr., Los Angeles 25, Calif.
Breitner, Carl (P) — 2500 E. Van Buren St., Phoenix, Ariz.
Cohen, Melvin L. (Pd) — 526 E. Dunlap St., Phoenix, Ariz.
Conn, Edward E. (GS-Res) — Maricopa County Hospital, Phoenix, Ariz.
Cuthbertson, Robert F. (GP) — 4426 E. Indian School Rd., Phoenix, Ariz.
Davis, Charles T. (Oph) — 1112 N. 13th St., Temple, Texas.
Dexter, Ricahrd L. (I) — 116 N. Tucson Blvd., Tucson, Ariz.
Dowell, Rowland J. (GP) — San Manuel, Ariz.
Farrar, Maurice C. (ObG) — 550 W. Thomas Rd., Phoenix, Ariz.
Foss, Eugene D. (GP) — 115 W. 2nd St., Flora, Ill.
Ganter, Elton L. (R) — 1130 E. McDowell Rd., Phoenix, Ariz.
Gentner, George M. (R) — 516 Prytania St., New Orleans 15, La.
Gibson, Richard E. (GP) — 4475 Far Hill Drive, Birmingham, Mich.
Gooch, Billy A. (Anes Res) — 928 Church St., Galveston, Texas.
Helme, William B. (NS) — 926 E. McDowell Rd., Phoenix, Ariz.
Johnson, Jr., Henry T. (S) — 1439 E. Michigan Ave., Lansing 12, Mich.
Johnson, Roger S. (GP) — P.O. Box B, Excelsior, Minn.
Kadesky, Melvin C. (U) — University Hospitals, Iowa City, Iowa.
Kazan, Ivan W. (GP) — Page, Ariz.
Kirschner, Rudolf (GP) — 3600th USAF Hosp., Luke AFB, Glendale, Ariz.
Kirschvink, Joseph (Pd) — 257 Rosewood Ave., Salt Lake City 15, Utah.
Klein, Thomas W. (GP) — Vincent AFB, Yuma, Ariz.
Koch, Jr., Henry J. (I) — 2430 E. 6th St., Tucson, Ariz.
Licosati, Gennaro (GP) — USPHS - Indian Health, Casa Grande, Ariz.
Lindes, DeArmond (GP) — P.O. Box 471, Springerville, Ariz.
MacCollum, M. Speers (GP) — 3600th USAF Hosp., Luke AFB, Glendale, Ariz.
Murray, Donald J. (GP) — 5101 N. 7th Ave., Phoenix, Ariz.
Oppegaard, Chester (Oph) — 220 S. Broadway, Crookston, Minn.
Ramsey, Harold E. (GP) — 1843 E. Atlanta Ave., Phoenix, Ariz.
Raska, Sigwin B. (I) — 2520 Lakeview Ave., Chicago, Ill.
Rorke, Joseph F. (GP) — Melcroft, Pa.
Scheinberg, Louis (I) — 3845 18th Ave., Brooklyn 18, N. Y.
Seagle, Joseph B. (Pd) — 116 N. Tucson Blvd., Tucson, Ariz.
Slaughter, Jr., John C. (D) — 3700 Bellemeade Ave., Evansville 15, Ind.
Swenson, Eugene J. (S-Res) — 350 W. Thomas Rd., Phoenix, Ariz.
Tilton, John J. (GP) — Bellevue, Iowa.
Tompkins, Charles A. (Pd) — 404 S. 70th St., Omaha, Neb.
Wenzel, James B. (Pd) — 1301 N. Beaver St., Flagstaff, Ariz.
Whiting, Edwin B. (Ob) — 1150 N. Country Club Dr., Mesa, Ariz.
Witzeman, Robert A. (Anes) — 2021 N. Central Ave., Phoenix, Ariz.

LOCATION INQUIRIES

BODMER, BERNARD A., M.D., 1706 E. Chaffin, Sherman, Texas; *GP*; graduated from Kansas University in 1955 and interned at Sacramento County Hospital, Sacramento, Calif. Has Kansas license and is currently practicing in the U.S. Air Force. Will be discharged and available in December 1958. Interested in assistant or associate practice.

GARRIE, SANDER, M.D., 208 E. Wisconsin, Milwaukee 2, Wis.; *GS*; is 1952 graduate of the University of Illinois and interned at Cedars of Lebanon Hospital in Los Angeles, Calif. Holds licenses in Illinois, Wisconsin, New York and California and has fulfilled his military obligation. Interested in assistant or associate practice in clinic and prefers to specialize in GS. Available now.

HIRSCH, PAUL, M.D., 1925 East West Highway, Silver Spring, Md.; *D*; 1953 graduate of the University of Illinois and interned at the VA Hospital in Long Beach, Calif. Has California and Pennsylvania licenses and has certification of the American Board of Dermatology. Is now completing year's fellowship in dermal pathology. Has served in the navy and will be available in August 1958.

RUSSELL, JAMES LOUIS, M.D., 1532 Tulane Ave., New Orleans 12, La.; S-*TS*; 1949 graduate of the St. Louis University School of Medicine and served his internship at the Charity Hospital in Louisiana where he is currently a resident in surgery and thoracic surgery. Holds national board, Missouri and Louisiana licenses and is certified by the American Board of Surgery. Has served his military obligation. Would like clinic-type practice, assistant or associate, and is willing to take part-time institutional work. Available August or September 1958.

WILLEMS, MARY SUSANNE, M.D., 596 Pearl St., Marseilles, Ill.; GP; 1956 graduate of the University of Illinois and interned at the Milwukee County General Hospital, Milwaukee, Wis. Has Illinois license and would like to start practice here as part of a group. Is available now.

LOCATION OPPORTUNITIES

ASHFORK — Pop. 700 — North centrally located — Railroad center — Contact the Women's Club, Ashfork, Ariz.

BENSON — Excellent opportunity for GP — This St. David-Benson trade area has about 5,000 population with only one doctor available. A small sleep-in hospital can be set up very easily. Hospital 25 miles away. Chamber of Commerce will furnish telephone answering service, 9 to 5. Contact Bernard Fisher, D.D.S., Medical Committee of the Chamber of Commerce, Benson, Ariz., or James M. Hesser, M.D., 6th and Huachuca streets, Benson, Ariz.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R.N., Camp Verde, Ariz.

FLAGSTAFF — Pop. 17,500 — Largest city in the north central Arizona trading area. Excellent opportunity for an EENT doctor. Contact K. O. Hanson, M.D., Secretary, Coconino County Medical Society, 5 N. Leroux, Flagstaff, Ariz.

GILA BEND — Pop. 2,500 —80 miles west of Phoenix — Nearest town to the Painted Rock Dam Project — Good opportunity for general practitioner. Cattle, cotton, and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HAYDEN — Pop. 3,000-4,000. Industrial practice — approximately 200 employes and dependents. Only part-time required. Coverage: Metropolitan Surgical Plan. Physician may engage in private practice also. Small company-owned clinical building (new) available for use, with X-ray equipment, diathermy equipment, etc. Full-time nurse available to assist; clerical work to be handled by company. Company housing facilities available for physician — small rental. Beginning Sept. 1, 1958. Contact: American Smelting & Refining Company, Mr. Ben Roberts, Dept. Mgr., P.O. Box 1111, El Paso, Texas.

HOLBROOK — Population above 7,000. Located in the heart of the northeastern pine country of Arizona on U.S. Route 66. Need services of GP. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

MIAMI — Opportunity for GP — Industrial hospital staffed by approx. seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community near New Mexico-Arizona border. Pop. 10,000. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

SAFFORD — In need of GP. Pop. 6,000. Ideal year-around climate. Good schools, park, swimming pool, golf course, Elks Club. Private hospital, open staff. Surgical privileges after six mos., if qualified. Completely equipped office for rent and equipment for sale. Contact M. T. Sandeno, M.D., 803 - 7th St., Safford, Ariz.

SHOW LOW — Pop. 1,500. Trading center for some 10,000 people. Summer and winter recreation area, cool climate and beautiful forest country. Townspeople anxious to locate doctor who would help establish a much - needed hospital and promise full co-operation. Contact either Mary and Eric Marks, Paint Pony Lodge, Show Low, Ariz., or Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz., or Mr. Mitchell Bushman, Show Low, Ariz.

ST. JOHNS — Seriously need a doctor of medicine, preferably a general practitioner, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP. Serves a trad-

ing population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. Peter Falbo, president, chamber of commerce, 9112 W. Van Buren St., Tolleson, Ariz.

TUCSON —The VA Hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training, as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., director, professional service, VA Hospital, Tucson, Ariz.

YOUNGTOWN — Pop. approximately 130. Located 16 miles from Phoenix and just a few miles from several small towns, each a potential field of practice. Most residents are 60 years of age or older and are in need of medical care. Office space is currently provided at no rental. A medical center is being planned. Interested doctors may contact Mr. Sid Lambert, Box 61, Marionette, Ariz.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Ariz.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Ariz.

———

Utilization of general hospitals has increased more sharply recently than use of mental and tuberculosis hospitals. Even so, the country's psychiatric hospitals still account for more than half of all patient-days.

Future Meetings

UTAH STATE MEDICAL ASSOCIATION

63rd Annual Scientific Meetings

Sept. 10, 11, 12, 1958 — Salt Lake City, Utah

Registration and All Sessions at Hotel Utah Motor Lodge

Guest Speakers:

Edward L. Compere, M.D., Oscar Creech, Jr., M.D., Peter H. Forsham, M.A., M.D., Robert L. Jackson, M.D., Vincent C. Kelley, PhD., M.D., John C. Krantz, Jr., Ph.D., Petter A. Lindstrom, M.D., William T. Mustard, M.B.E., M.D., Ernest W. Page, M.D., Theodore E. Walsh, M.D.

Symposium:

Sponsored by the Department of Pharmacology, University of Utah College of Medicine, Salt Lake City, Utah, Thursday, Sept. 11, 1958.

Symposium:

Sponsored by the Department of Surgery, University of Utah College of Medicine, Salt Lake City, Utah, Friday, Sept. 12, 1958.

SPECIAL CONVENTION FEATURE

Mental Health Conference — Hotel Utah — 9:30 a.m., Sept. 10

———

ARIZONA ACADEMY OF GENERAL PRACTICE

1958 Convention

Valley Ho, Scottsdale, Oct. 2-4, 1958

Tentative program:

THURSDAY, OCT. 2

9 a.m. — Registration. Fee, $5. This fee will include the president's cocktail party and buffet supper.

Board of Directors' Meeting.

Meeting of the Nominating Committee.

Exhibits.

2 p.m. — Call to Order — President, Walter Brazie, M.D.

2:30 p.m. — "Electrocardiography, its Techniques and Clinical Applications." — Samuel J. Grauman, M.D., Tucson, Ariz.

3:30 p.m. — "Current Status of Sterility Investigations — Both Medical and Psychological" — Robert N. Rutherford, M. D., Seattle, Wash.

4:30 p.m. — Adjourn for afternoon, visit to exhibits, swimming, etc.

6:30 p.m. — President's reception, informal, cocktail party, buffet dinner.

FRIDAY, OCT. 3

HE NEEDN'T BE HIGH-STRUNG

WEIGHT REDUCTION: Obese patients may resist dieting because they fear losing the emotional security often involved in overeating. **AMBAR** helps them hold the diet line by giving them a more alert, brighter outlook. **WITHOUT JITTERS:** Methamphetamine, a potent CNS augmenter, produces less cardiovascular effect than amphetamine. In **AMBAR** it is combined with just enough phenobarbital to prevent overstimulation. **AMBAR EXTENTABS** provide 10-12 hours of appetite suppression in one controlled-release, extended-action tablet: methamphetamine hydrochloride, 10.0 mg.; phenobarbital (1 gr.) 64.8 mg. **AMBAR TABLETS** for conventional dosage or intermittent therapy contain methamphetamine hydrochloride, 3.33 mg.; phenobarbital (1/3 gr.) 21.6 mg. A. H. ROBINS COMPANY, INC., Richmond, Virginia, Ethical Pharmaceuticals of Merit Since 1878

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9 a.m. — "Electroencephalography, Its Techniques and Clinical Application" — Richard D. Walter, M.D., Los Angeles, Calif.

10 a.m. — "Lumps in Kids" — William Clatworthy, M.D., Columbus, Ohio.

11 a.m. — Recess — Visit Exhibits.

11:30 a.m. — Annual Business Meeting.

2 p.m. — "Modern Amnesia and Analgesia Routines in Pregnancy" — Robert N. Rutherford, M.D., Seattle, Wash.

3 p.m. — "Recognition and Treatment of Some Common Ocular Problems" — James Calkins, M.D., Tucson, Ariz. and A. K. Hansen, M.D., Tucson, Ariz.

4 p.m. — "The Evalution of Psychosomatic Complaints" — Frank J. Ayd, Jr., M.D., Baltimore, Md.

5 p.m. — Adjourn for the day.

SATURDAY, OCT. 4

9 a.m. — "Stelazine Therapy for the Psychosomatic Patient" — Frank J. Ayd, Jr., M.D., Baltimore, Md.

10 a.m. — "When To Do What In Infant Surgery" — H. William Clatworthy, Jr., M.D., Columbus, Ohio.

11 a.m. — "Electrocardiography, Audiocardiography, Its Clinical Applications and a Demonstration" — Samuel J. Grauman, M.D., Tucson, Ariz.

12 noon — Adjournment of the 1958 Annual Convention.

Golf Tournament

7 p.m. — Formal dinner dance and cocktail hour.

Installation of new president

Award for Golf Tournament

Guest Speaker — Mac F. Cahal, Executive Secretary, AAGP

Dancing.

SOUTHWESTERN MEDICAL ASSOCIATION

ANNUAL MEETING

Pioneer Hotel

Tucson, Ariz. Oct. 23, 24, 25, 1958

Dinner Dance Oct. 24

Golf Game Oct. 25

High School Day Visitation, Univ. of Arizona, Oct. 25

Women's Special Program

Football Game, Oct. 25: U. of A. vs. Idaho

Regional Meetings

You are invited to hear the following speakers:

1. John I. Brewer, M.D. — Professor of Gynecology & Obstetrics, Northwestern University, Chicago, Ill.

2. R. V. Platou, M.D. — Professor and Head of Department of Pediatrics, Tulane University, New Orleans, La.

3. George C. Andrews, M.D. — Consulting Dermatologist to Columbia Presbyterian Medical Center, New York City, N. Y.

4. John W. Henderson, M.D. — Associate Professor of Ophthalmology, Mayo Foundation, Rochester, Minn.

5. Robert M. Zollinger, M.D. — Professor of Surgery, Ohio State University, Columbus, Ohio.

6. Reginald H. Smart, M.D. — Professor of Medicine, University of Southern California, Los Angeles, Calif.

7. John R. Schenken, M.D. — Professor of Pathology, University of Nebraska, Omaha, Neb.

MEDICAL SOCIETY OF THE U. S. and MEXICO

Guadalajara, Mexico — Nov. 5-8, 1958

MEETING:

Guadalajara, Mexico — Nov. 5-8, 1958.

PROGRAM:

Details in circular from Mexico.

ATTENDANCE:

As big an American representation as possible desired.

TRAVEL:

Air, car, or special train to be set up from Nogales on or about Nov. 3.

JUAN E. FONSECA, M.D., SEC.
Medical Society of the U.S. and Mexico
2409 E. Adams
Tucson, Ariz.

INTERNATIONAL COLLEGE OF SURGEONS TO HOLD TWO POSTGRADUATE COURSES

IN RESPONSE to requests, the United States section of the International College of Surgeons has arranged with the faculty of the Cook County Graduate School of Medicine, Chicago, for the presentation of two postgraduate courses this year instead of one.

The first was given July 7-19, and the second will be Oct. 13-25. The courses will be conducted under the supervision of the attending staff of Cook County Hospital, Chicago.

The courses will include illustrated lectures, motion pictures, anatomy demonstrations, oper-

ative clinics, and practice surgery by the participants on anesthetized dogs. Consideration will be given not only to surgical techniques, surgical complications, and management of the surgical patient, but also to an intensive review of the basic sciences in relation to clinical surgery.

In addition to 20 hours of surgical anatomy on the cadaver, the program will include lectures and demonstrations on the following topic: gastric, pediatric, large and small bowel, anorectal, pancreatic, splenic, gallbladder, gynecologic, hernia, esophageal and thyroid surgery; physiology, intestinal obstruction, thoracic emergencies, cardiac arrest, hand injuries and infections, and abdominal injuries.

Additional information may be obtained from the Cook County Graduate School of Medicine, 707 S. Wood St., Chicago 12, Ill., or International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Ill.

AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS

PLANS have been made for the second annual convention of the American Association of Medical Asistants to be held at the Palmer House, Chicago, Ill., Oct. 31, Nov. 1 and 2, 1958.

The American Association of Medical Assistants is made up of men and women employed as assistants in the offices of Doctors of Medicine. The association was conceived in Kansas City, Kan., during the fall of 1955 when interested persons from 15 states met to make plans for a formal organization. The second meeting was held the following year in Milwaukee, Wis., at which time a constitution and bylaws were adopted and the association formally set up.

During this first official year, great deal of work was done and the first annual convention was held in San Francisco, Calif., in October 1957. Now, with a membership of nearly 6,000 representating 17 states, and with the approval of state medical societies and the American Medical Association, this association is well under way.

The purposes of the association are stated as follows: To inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve. To strive at all times to co-operate with the medical profession in improving public relations. To render educational services for the self-improvement of its members and to stimulate a feeling of fellowship and co-operation among the societies. To encourage and assist all unorganized medical assistants in forming local and state societies. This association is declared to be non-profit. It is not nor shall it ever become a trade union or collective bargaining agency.

Several states now offer fine educational courses with the co-operation of their colleges and universities which will help the assistant to become more valuable in the doctor's office. Physicians realize that the well-trained assistant is an asset to their profession and that these courses will relieve them of much of the time-consuming work of on-the-job training. The American Association plans to offer courses on a national level as soon as a suitable curriculum has been set up.

Membership in medical assistants' societies throughout the country has provided an opportunity for the assistant to benefit from the many fine lectures, workshops and seminars as a part of regular programs.

The American Association of Medical Assistants is now offering its members a comprehensive insurance program. This is a salary replacement (sickness and accident) plan with optional major hospital, nurse expense and surgical benefits.

It is to the advantage of the medical profession to have their medical assistants affiliated with this organization.

The American Association of Medical Assistants would welcome the opportunity to give information concerning the organization and to assist with the formation of county and state societies. Inquiries may be addressed to Miss Hallie Cummins, R.R.L., Chairman of the Public Relations Committee, Medical Record Library, Caro State Hospital for Epileptics, Caro, Mich.

Upjohn Abstract:

NEW HORMONE SAID TO BE MOST POTENT PROGRESTATIONAL AGENT YET DEVELOPED

THE SYNTHESIS of a new hormone, described as a powerful agent that may help in the prevention of miscarriage or premature birth, is announced in the June issue of the *Journal of the American Chemical Society.*

Provera, believed to be the most active compound for this purpose ever known, has been shown to be up to 300 times as potent as drugs now in use, according to tests carried out.

CALENDAR OF MEETINGS

DATE	MEETINGS	PLACE
Aug.		
10-16	National Medical Association	Milwaukee, Wis.
21-23	Western Reg. Meeting Interntl. Coll. of Surg.	Reno, Nev.
Sept.		
10-12	Utah State Medical Association	Salt Lake City, Utah
29-31	Soc. of Clinical & Exper. Hypnosis	Chicago, Ill.
30 - Oct. 3	American Roentgen Ray Society	Shoreham Hotel, Washington, D.C.
Oct.		
2	Arizona Academy of General Practice	Scottsdale, Arizona
5-10	American College of Surgeons	Chicago, Ill.
9-10	Big 12 Cities Meeting	Biltmore Hotel, N.Y.C.
10 - Dec. 3	International Coll. of Surgs. 3rd Around the World post graduate clinic tour	
13-15	Natl. Rehabilitation Ass'n. Annual Meeting	Ashville, N. C.
20-24	Annual Meeting Amer. Cancer Soc. (Sci. Sess.)	Biltmore Hotel, N.Y.C.
23-25	Southwestern Medical Association	Tucson, Ariz.
23-25	Course in PG Gastroenterology — Amer. Coll. Gastroenterology	Jung Hotel, New Orleans, La.
27-31	American Public Health Association	St. Louis, Mo.
Nov.		
2-8	American Society Clinical Pathologists	Chicago, Ill.
2-8	6th International American Congress Radiology	Lima, Peru
3-8	College American Pathologists	Chicago, Ill.
5-8	Med. Soc. of the U. S. and Mexico	Guadalajara, Mexico
10-13	American Dental Association	Dallas, Texas
17-22	Radiological Society of North America	Chicago, Ill.
18-22	Pan American Dental Congress	Mexico City, Mexico
Dec.		
2-5	American Med. Ass'n. Clinical Meetings	Minneapolis, Minn.
Jan. 1959		
4-7	Southeastern Regional Meeting International Coll. of Surgeons	Miami, Fla.
Feb.		
5-8	American Coll. of Radiology, Annual Meeting	Chicago, Ill.
March		
9-12	AMA 4-day Sectional Meeting	St. Louis, Mo.
16-20	National Health Council Annual Meeting	Chicago, Ill.
30 - Apr. 2	Southwestern Surg. Congress	Denver, Colo.
April		
6-8	American Radium Society	Homestead Hotel, Hot Springs, Va.
6-9	American Academy of General Practice	San Francisco, Calif.
9-12	American Ass'n. for Cancer Research Inc.	Haddon Hall, Atlantic City, N. J.
20-23	American Ass'n. Pathologists & Bacteriologists	Boston, Mass.
20-24	American College of Physicians	Conrad Hilton Hotel, Chicago, Ill.
28 - May 2	Arizona Medical Association	Chandler, Ariz.

Woman's Auxiliary

PRESIDENT'S REPORT

AS PRESIDENT of the Women's Auxiliary to the Arizona Medical Association, it is my privilege to report the accomplishments of the organization for the year 1957-1958.

The membership has increased from 581 to 594, including 36 members-at-large.

AMEF was given top priority by our six auxiliaries. Our quota, as set by national, of $1,200 has been exceeded. Arizona contributed $1,306.68 by various money making methods. Members are becoming more aware of the use of the appreciation-sympathy cards.

Greater reception room readership is slowly becoming a reality and *Today's Health* subscriptions have increased from 433 to a total of 644.

One hundred subscriptions to the *Bulletin* have been sold. This 50 per cent increase is attributed to two counties including the *Bulletin* in their annual dues.

The programs have varied according to the needs and interest of each auxiliary. Interesting and educational programs were planned around the theme, "Health is a Joint Endeavor."

Accompanied by the president-elect, I visited all organized counties after the national conference in the fall. All phases of the auxiliary program were reported.

The component auxiliaries carried part or all of the national program. Joint meetings with the medical societies and social "getting to know you" gatherings were frequently enjoyed.

In place of the school of instruction usually held at convention, Mrs. Paul C. Craig, national president, conducted an informal group discussion for members and officers.

The *Newsletter* chairman has done an outstanding job in promoting public relations among the doctors' wives throughout the state. Each one was kept informed on auxiliary activities and news of human interest from the 14 counties was included. Eight hundred and fifty copies have been sent out four times this year. Through the courtesy of the Arizona Medical Association, reports and articles of interest to the auxiliary have been published in the *Arizona Medicine Journal.*

Each doctor's wife contributed to public relations by her many activities within her own community.

Gila County members were instrumental in sponsoring their first charity ball, the proceeds going to their community hospital. They arranged for the state civil defense chairman of the Women's Auxiliary to show slides in a local theater. Over 400 people from different organizations attended.

Coconino, which will soon be organized two years, held weekly radio health programs. Through donations of auxiliary members, curtains were obtained for the crippled children's center.

Yavapai held their sixth annual charity ball and netted $6,009 for their community hospital. They also contributed to many charities from the proceeds of a rummage sale.

Maricopa, under the Community Council program, contributed Christmas gifts to teenage boys. Their annual rummage sale proceeds went to the Phoenix Visiting Nurse Service and the Maricopa Child Guidance Clinic.

Pima County, by means of a Christmas bazaar and bridge marathon, helped raise funds for a joint hospital drive and also participated in many other community projects.

Yuma County is one of the first sponsors of the local high school Science Fair and did audiometer tests on one entire grammar school.

Space will not permit listing the many health and welfare agencies that have benefited from the many hours of volunteer service given by doctors' wives in this state.

The legislative chairman alerted all county chairmen to be informed on the Jenkins-Keogh bill, the Forand bill, the Bricker amendment and the medical school issue. Two state bills of interest that the auxiliary supported were: 1. Compulsory driver training course in high schools, and 2. The mental health commitment bill. The co-operation of the legislative committee of the medical association and the corresponding committee of the auxiliary has been most satisfactory.

Recruitment is an active program in all parts of our state, each auxiliary co-operating with the nurses' association on the state and county level.

During Recruitment Week, the hospitals held open house for Future Nurse Clubs. Auxiliary members conducted panel discussions in high schools. Mimeographed information about other allied careers was distributed to school counselors. The Maricopa Auxiliary, with only 15 members participating, made a 16 mm. color film based on an actual case and showing the various medical disciplines in action. This will be available on a rental basis for other counties.

Since the inception of the student nurse loan fund in 1950, there have been 48 loans made by the auxiliary. At present there are 17 recipients of the loan training in Arizona hospitals. This year, nine new loans were given to high school students.

In the field of mental health, a survey of the state showed that there were no facilities available for the psychotic child. One county worked with their local medical society to endorse the mental health commitment bill and also provided furnishings and substantial funds for the child guidance clinic.

Civil defense aroused little or no interest until this year when the chairman, a lieutenant colonel in the army reserve nurse corps, sparked by her own enthusiasm and standing firm on her own convictions, not only promoted the program by national, but added immunizations. She had records printed and distributed to all doctors' wives in the state and to interested lay groups. The auxiliary is to serve as a stimulus to the general public in obtaining and maintaining their immunization records. This chairman visited several counties giving talks and showing slides that she had made at the Nevada test site after witnessing two atomic detonations. She set up an exhibit for the state convention stressing all forms of disaster preparedness. It consisted of dehydrated foods, water storage containers and pictures of various shelters that have been tested. This was a very impressive display.

In the field of safety, four high schools have driver training programs. Members sent letters to the state legislators supporting a compulsory driver training program in the state.

The convention program was not printed in its entirety this year, at the recommendation of the convention evaluation committee. Standing committee reports were dispensed with at convention and will appear in the *Newsletter* in abstract form. However, seven chairmen made posters depicting the work accomplished in the counties. These were on display at the meetings and proved most effective.

This is the first year that we have given recognition to Science Fair winners at a state convention. There were three exhibits by students from the central and southern regional science fairs, biological division. They were given awards and were honor guests at an auxiliary luncheon.

I wish to express my appreciation to the Arizona Medical Association for its guidance and co-operation, to a splendid group of board members who made our success this year possible, to the national officers and the central office of the American Medical Association for its assistance.

Thank you for the privilege of serving as your president.

Respectfully submitted,

MRS. CHARLES S. POWELL,

President

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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FINNERTY, F. A., Buchholz, J. H. and Tuckman, J.: J.A.M.A. **166**:141, Jan. 11, 1958.

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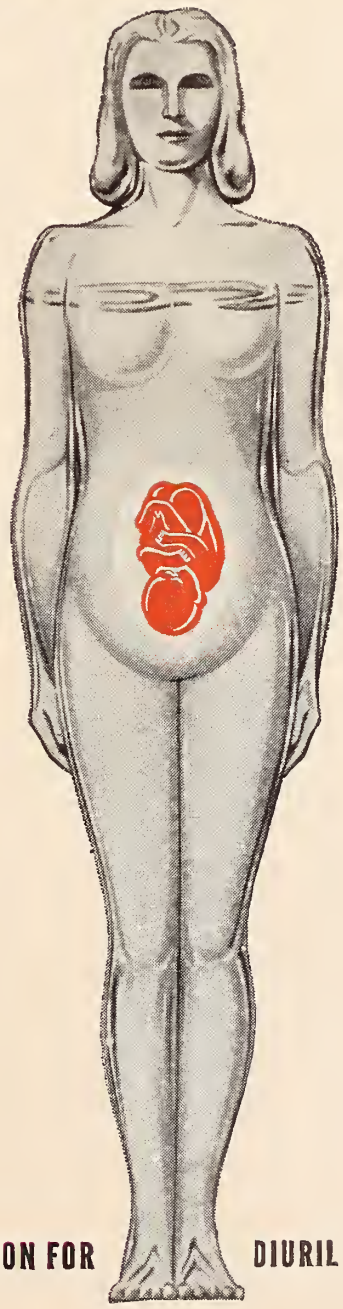
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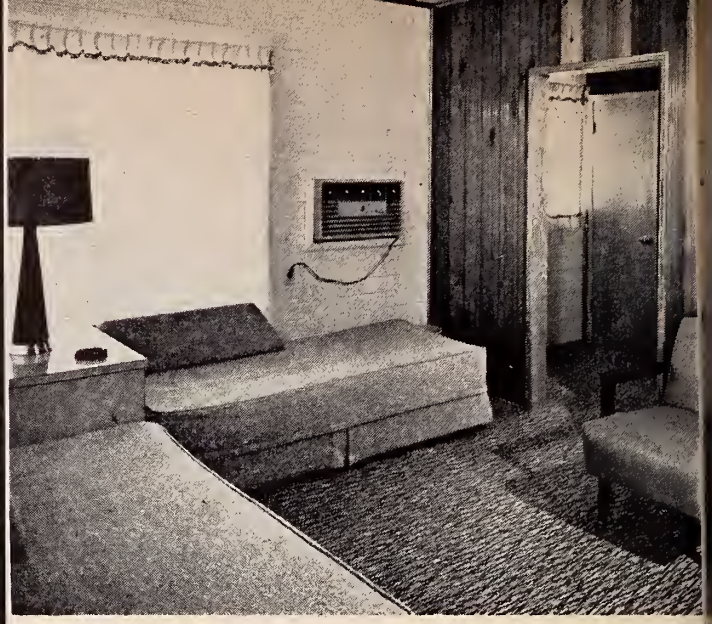
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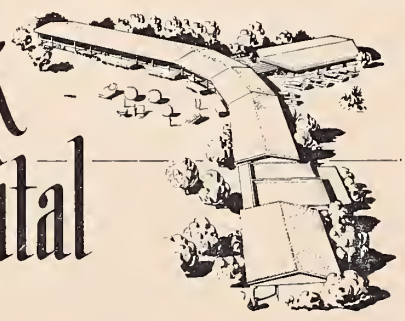


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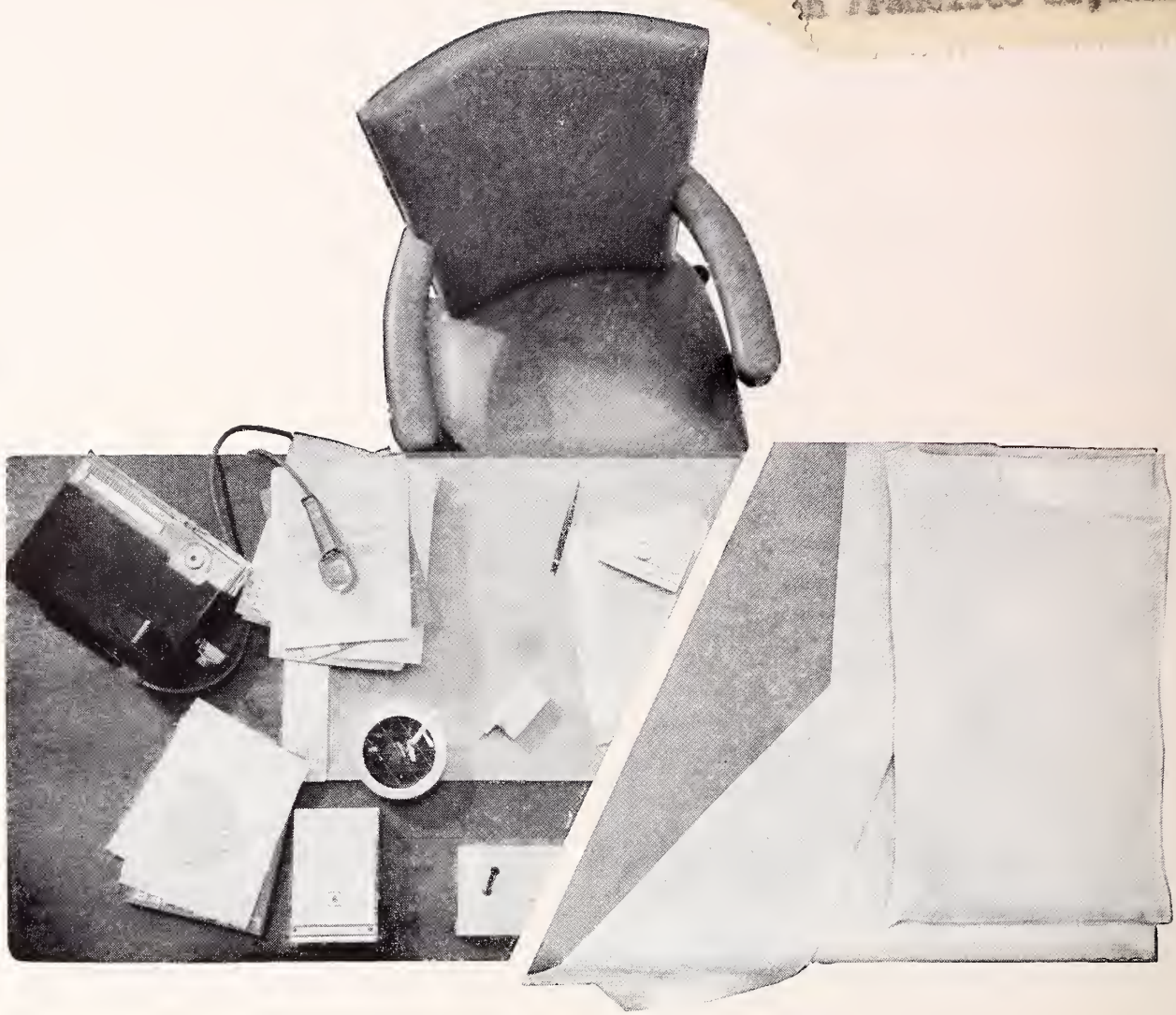
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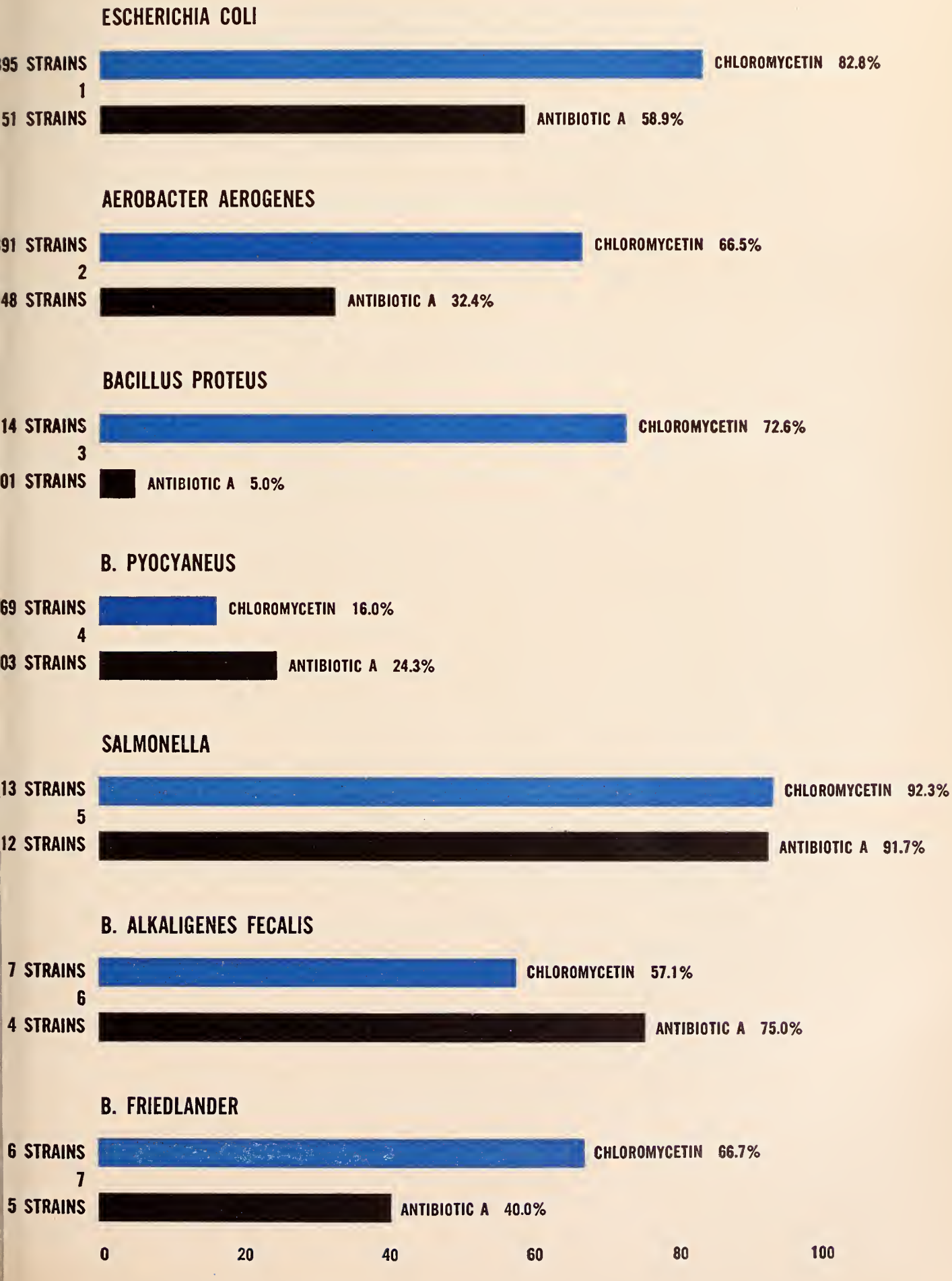
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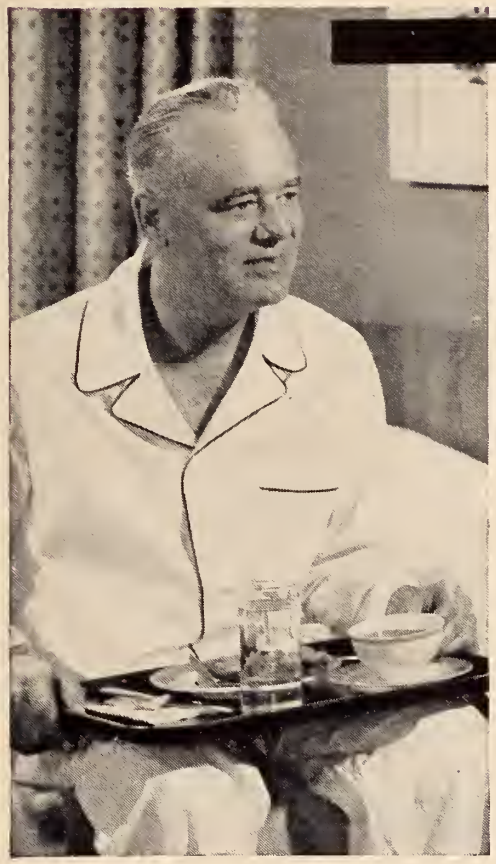
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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

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ARIZONA MEDICINE

Journal of ARIZONA MEDICAL ASSOCIATION

Vol. 15, No. 9 — September, 1958

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. . . a complete line of

SURGICAL SUPPORTS



Fitted exactly as you prescribe.

. . . for your patients' every condition — such as back strain, obesity, post-operative, viceroptosis, cardiac, emphysema, etc.

Hospital and home calls made at your direction.

Expert fitters, private fitting rooms.

Grove's Surgical Supports Store

3123 N. CENTRAL AVE.

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LEDERLE LABORATORIES

Lederle

A Division of AMERICAN CYANAMID COMPANY

INTEROFFICE CORRESPONDENCE

Pearl River, N. Y. 7/18/58

OFFICE DATE

TO: Advertising Department COPY TO:

ATT'N: J. D. Roberts

FROM: C. K. Howe, Sales

Jim --

Here's a question a number of our detail men have tossed at me. Why doesn't Lederle's advertising for ACHROMYCIN V Tetracycline play up higher, faster blood levels the way so many of our competitors do?

As you know, new laboratory studies show pretty conclusively that ACHROMYCIN V is unexcelled in this department.

How come we haven't turned on the heat in our ads?

C. K. Howe

CKH:ls

LEDERLE LABORATORIES

Lederle

A Division of AMERICAN CYANAMID COMPANY

INTEROFFICE CORRESPONDENCE

Noted CKH

Pearl River, N. Y. 7/21/58

OFFICE DATE

TO: Sales Department COPY TO:

ATT'N: C. K. Howe

FROM: J. D. Roberts

Charlie --

Sure ACHROMYCIN V Tetracycline blood levels are unsurpassed in the latest laboratory study. But actually how significant are <u>any</u> of these blood levels, <u>clinically</u>? It's really a matter of micromilligrams and fractional minutes! Let's not put Lederle in the position of giving this sort of evidence more emphasis than it deserves.

I think our job is to let doctors know that Lederle Research developed ACHROMYCIN V to give improved results under actual clinical conditions . . . to get a higher percentage of antibiotic to the tissues.

The fact that ACHROMYCIN V is the most widely prescribed broad-spectrum antibiotic ought to be pretty good evidence that physicians are consistently getting these results.

If your detail men will give doctors the complete story on antibiotics, I think ACHROMYCIN V prescriptions will continue to climb without any fancy blood level advertising.

J. D. Roberts

JDR:ep



Supp-hose†*

FOR LEG FATIGUE AND MILD VARICOSITIES

Recent clinical research demonstrated the excellent value of Supp-hose for leg fatigue, and mild disorders where heavy surgical stockings are not prescribed. The advantage of Supp-hose is that it looks just like any sheer nylon stocking, thus it overcomes one of the main objections of the patient concerned about her appearance.

SO MANY WOMEN COMPLAIN ABOUT LEG FATIGUE!

As you know, expectant mothers, housewives, working women, and women with mild varicosities all complain about discomfort of the extremities. Supp-hose eases this leg fatigue and gives gentle support all day long. Yet Supp-hose contains no rubber! Every stitch is fine nylon with a special twist that provides an elastic quality.

A VERY ECONOMICAL STOCKING!

Patented Supp-hose costs a woman just one-third what she usually pays for heavier surgical stockings. And wear tests indicate Supp-hose should give five times the wear of ordinary nylons. Supp-hose is available in proportioned sizes in beige, natural and white. At drug and department stores.

KAYSER-ROTH HOSIERY COMPANY, Inc., 200 Madison Avenue, N. Y. 16, N. Y. Sold in Canada.

congestive

DIURIL

CHLOROTHIAZ

BECKER, M. C., Simon, F. and Bernstein, A.: J. Newark Beth Israel Hosp. **9**:58 (January) 1958.

"On chlorothiazide the response was striking with . . . improvement in cardiac status and loss of toxic symptomatology. . . . One of the most important effects of the potent oral diuretic was the smooth continuous diuresis. There was less fluctuation in the weight . . . marked diminution in the number of acute episodes of congestive heart failure such as paroxysmal dyspnea and pulmonary edema. . . . [DIURIL] appeared as potent a diuretic as parenteral mercurials and indeed in some patients it was effective when parenteral mercurials failed. . . . We have encountered no patient who once responsive to chlorothiazide later developed resistance to it."

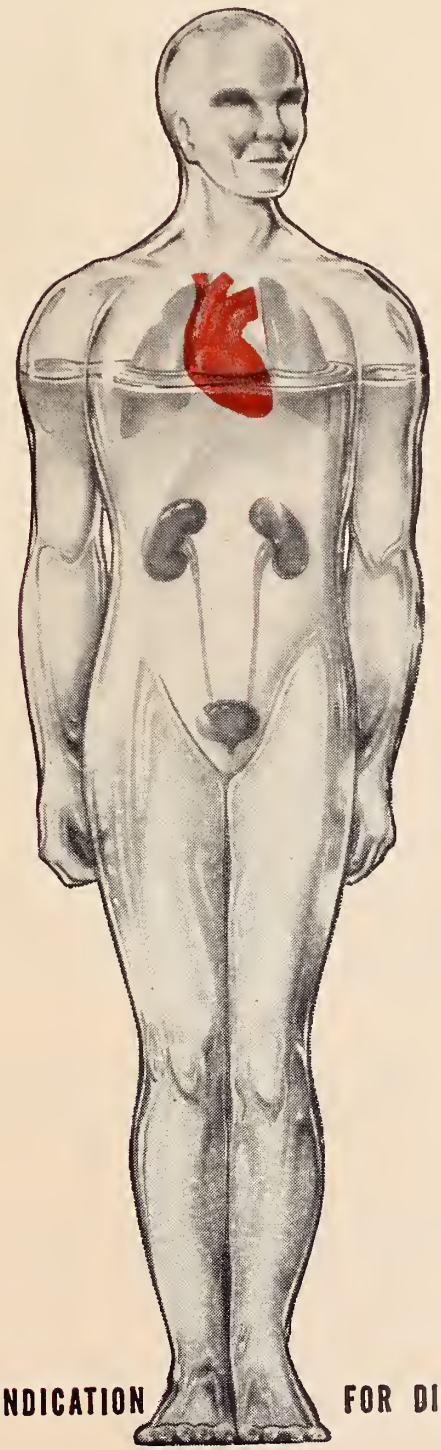
DOSAGE: one or two 500 mg. tablets DIURIL once or twice a day.

SUPPLIED: 250 mg. and 500 mg. scored tablets DIURIL (chlorothiazide); bottles of 100 and 1,000.

MERCK SHARP & DOHME Division of MERCK & CO., INC., Philadelphia 1, Pa.

ailure

arkedly relieves
ulmonary
dema



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL

For every topical indication, a Burroughs Wellcome 'SPORIN'...

'CORTISPORIN'®
brand **OINTMENT**

Combines the anti-inflammatory effect of hydrocortisone with the comprehensive bactericidal action of the antibiotics.

OINTMENT: Tubes of ⅛ oz. and ½ oz. (with applicator tip) for ophthalmic or dermatologic application.

OTIC DROPS: Bottles of 5 cc. with sterile dropper.

Provides comprehensive bactericidal action effective against virtually all bacteria likely to be found topically.

'NEOSPORIN'®
brand **ANTIBIOTIC OINTMENT**

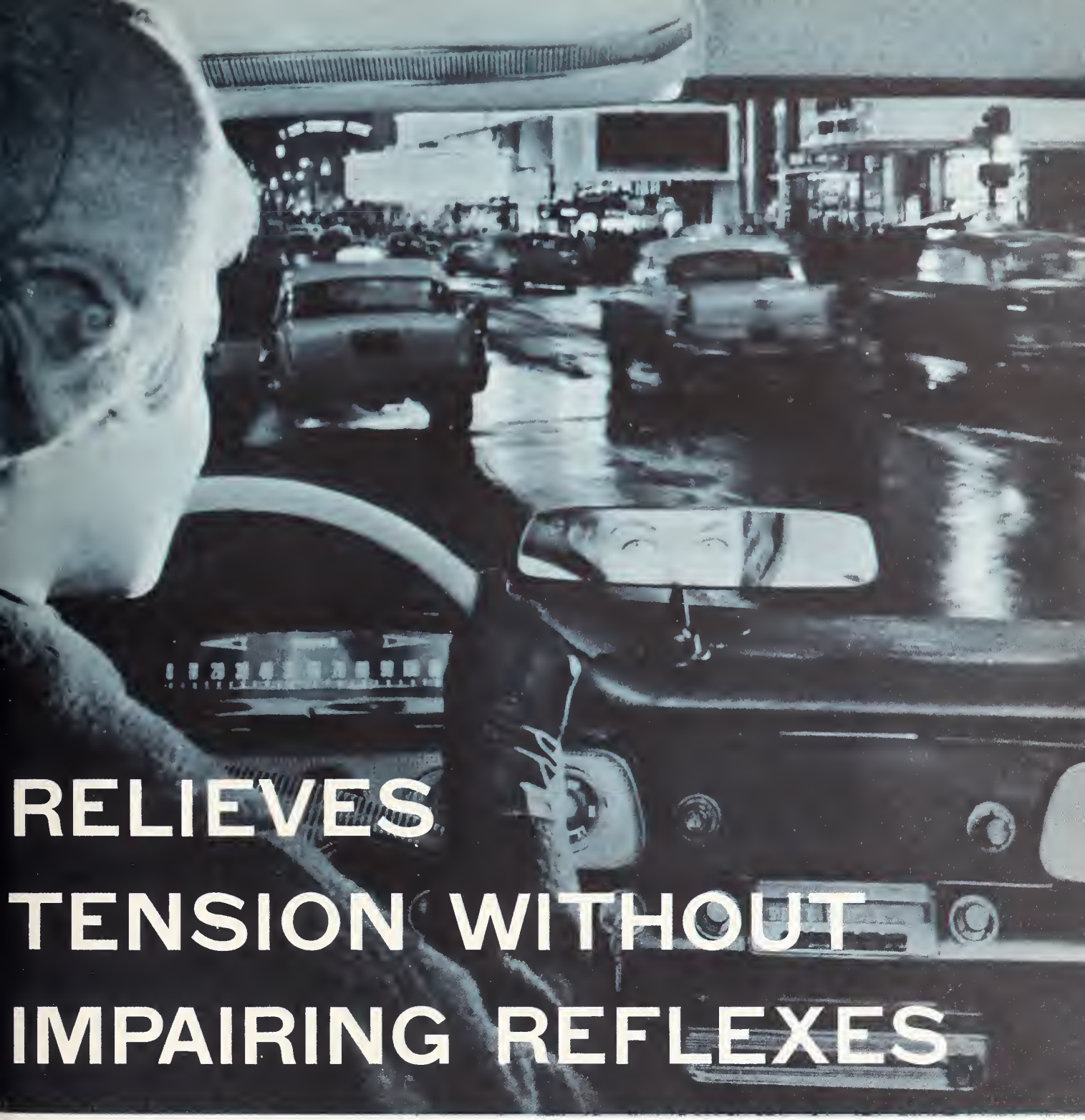
OINTMENT: Tubes of ½ and 1 oz. and tubes of ⅛ oz. with ophthalmic tip.
OPHTHALMIC SOLUTION: Bottles of 10 cc. with sterile dropper.
NEW { **LOTION:** Plastic squeeze bottles of 20 cc.
POWDER: Shaker-top bottles of 10 Gm.

'POLYSPORIN'®
brand **ANTIBIOTIC OINTMENT**

Offers combined antibiotic action for treating conditions due to susceptible organisms amenable to local medication.

OINTMENT: Tubes of ½ oz., 1 oz. and ⅛ oz. (ophthalmic tip).

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



RELIEVES TENSION WITHOUT IMPAIRING REFLEXES

"...[Miltown] produces no behavioral toxicity in our subjects as measured by our tests of driving, steadiness, and vision."*

Relieves anxiety, tension and muscle spasm in everyday practice

- with unexcelled safety
- without impairing autonomic function

Usual Dosage:
One or two
400 mg. tablets t.i.d.

Supplied:
400 mg.
scored tablets,
200 mg.
sugar-coated
tablets,
bottles of 50.

Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Ann. New York Acad. Sc. 67: 701, May 9, 1957.

Miltown®
meprobamate (Wallace)

WALLACE LABORATORIES, *New Brunswick, N. J.*

CM-7462

in the Menopause



triple benefits

first relieves apprehension, anxiety and irritability

second overcomes estrogen deficiency; relieves vasomotor and metabolic disturbances

third relaxes skeletal muscle; relieves low back pain, tension headache

Milprem®

MILTOWN® TRANQUILIZER WITH MUSCLE-RELAXANT ACTION + CONJUGATED ESTROGENS (EQUINE) ORALLY ACTIVE ESTROGEN

Each tablet contains:
Miltown (meprobamate, Wallace) . . . 400 mg.
2-methyl-2-n-propyl-1,3-propanediol dicarbamate
Conjugated Estrogens (equine) . . . . . 0.4 mg.

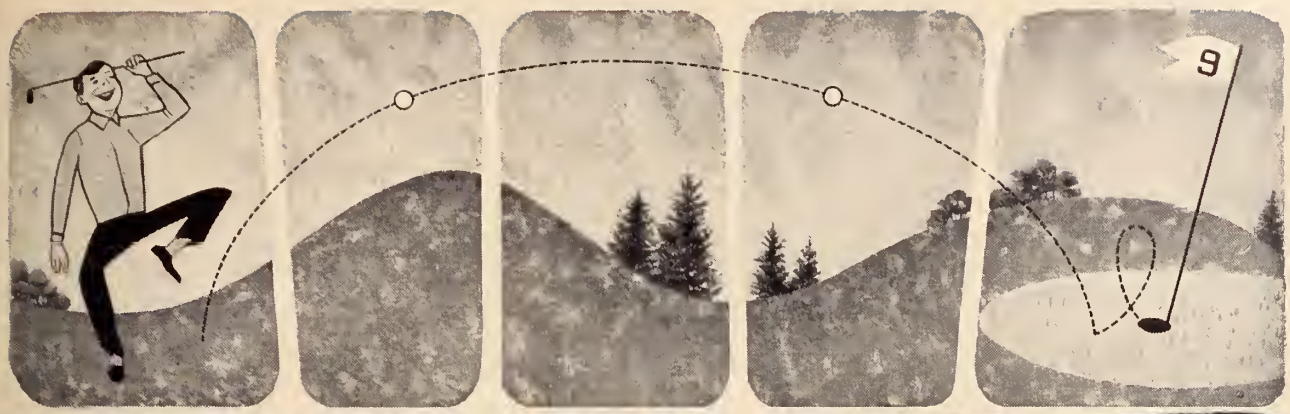
Supplied: Bottles of 60 tablets.

Dosage: 1 tablet t.i.d. in 21-day courses with one week rest periods; should be adjusted to individual requirements.

Literature and samples on request

WALLACE LABORATORIES, *New Brunswick, N. J.*

CMP-7347-78



LEAVES NOTHING TO BE DESIRED

HYCOMINE® Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / antihistamine / expectorant

- relieves cough and related symptoms in 15-20 minutes
- effective for 6 hours or longer • promotes expectoration
- rarely constipates • cherry-flavored

Each teaspoonful (5 cc.) contains:

Hycodan®		
Dihydrocodeinone Bitartrate	5 mg.	6.5 mg.
(Warning: May be habit-forming)		
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

Adult Dosage: one teaspoonful q. 6 h. May be habit-forming.
Federal law permits oral prescription.

Endo®

Literature on request
ENDO LABORATORIES
Richmond Hill 18, New York

U. S. Pat. 2,630,400





Doctors, too, like "Premarin"

The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them – it replaces what the patient lacks – natural estrogen.

Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms before the menopause and even after, "Premarin" takes care of that, too.

Women, of course, like "Premarin," too, because it quickly relieves their symptoms and gives them a "sense of well-being."

"PREMARIN"®
conjugated estrogens (equine)

Ayerst®

Ayerst Laboratories • New York 16, New York • Montreal, Canada

5841



1



2

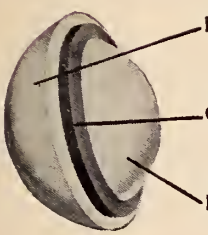
NEW *"flavor-timed" dual-action*
CORONARY VASODILATOR

Dilcoron TRADEMARK

ORAL (tablet swallowed whole)
for dependable prophylaxis

SUBLINGUAL-ORAL
for immediate and sustained relief

of **ANGINA PECTORIS**



NITROGLYCERIN—
0.4 mg. (1/150 grain)—acts quickly

CITRUS "FLAVOR-TIMER"—
signals patient when to swallow

PENTAERYTHRITOL TETRANITRATE—
15 mg. (1/4 grain)—prolongs action

For continuing prophylaxis patient swallows the entire Dilcoron tablet.

Average prophylactic dose:
1 tablet four times daily.

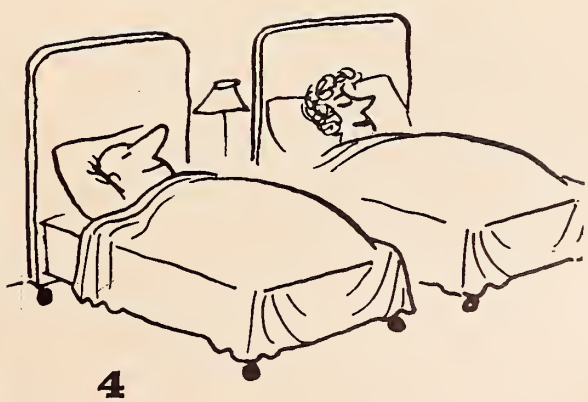
Therapeutic dose:
1 tablet held under the tongue until citrus flavor disappears, then swallowed.

Bottles of 100.

Winthrop LABORATORIES NEW YORK 18, N. Y.



3



4



SIGN OF GOOD TASTE



5



6

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FOR THE AMERICAN FAMILY

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Equipment Is At Times No Better Than The Follow-up Service Needed.

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KPB *surgical supply company*

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PHOENIX, ARIZONA

For immediate cough control

CITRA FORTE SYRUP

...Most powerful and effective cough suppressant available! (5.0 mg. dihydrocodeinone per tsp. plus multiple antihistamines and expectorant). Prompt—prolonged—yet economical cough therapy.
Dosage = 1 or 2 teaspoonfuls every 3-4 hours.

CITRA SYRUP...For relief of minor coughs (contains 1.67 mg. dihydrocodeinone/teaspoon).
Dosage = 1 or 2 teaspoonfuls every 3-4 hours.

CITRA CAPSULES...For immediate relief from most cold symptoms. Most powerful, orally effective Decongestant...plus *three* Antihistamines...helps bring immediate relief from cold symptoms with minimum side effects.
Dosage = 2 capsules stat, 1 q. 4 hrs.

LOS ANGELES 54, CALIFORNIA **BOYLE** & COMPANY

- postoperatively
- in pregnancy when vomiting is persistent
- following neurosurgical diagnostic procedures
- in infections, intra-abdominal disease, and carcinomatosis
- after nitrogen mustard therapy

for nausea and vomiting

VESPRIN

Squibb Trifluprom azine

- provides prompt, potent, and long-lasting control
- capable of depressing the gag reflex
- effective in cases refractory to other potent antiemetic agents
- may be given intravenously, intramuscularly and orally
- no pain or irritation on injection

ANTIEMETIC DOSAGE:
Intravenous: 8 mg. average single dose
Dosage range 2-10 mg.
Intramuscular: 15 mg. average single dose
Dosage range 5-15 mg.
If subsequent parenteral dose is needed, one-half the original dose will usually suffice
Oral: 10-20 mg. initially; then 10 mg. t.i.d.

SUPPLY:
Parenteral solution – 1 cc. ampuls (20mg./cc.)
Oral tablets – 10 mg., 25 mg., 50 mg., in bottles of 50 and 500

SQUIBB CENTENNIAL 1858 1958 SQUIBB *Squibb Quality – The Priceless Ingredient*

"VESPRIN" © IS A SQUIBB TRADEMARK

new

Tao*

PRONOUNCED TAY-O

*brand of triacetyloleandomycin with glucosamine

Capsules / Oral Suspension

designed for effective control of common gram-positive infections

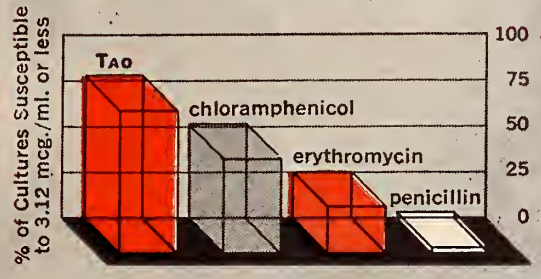
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
Failure	17 (7%)	11 (6%)	3 (3%)

Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. TAO has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to TAO, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

plus . . . stability in gastric acid • rapid, high and sustained blood levels • high urinary concentrations • outstanding palatability in a liquid preparation.

Dosage and Administration: Dosage varies according to the severity of the infection. For adults, the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. For children 8 months to 8 years of age, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered at any time, without regard to meals.

Supplied: TAO Capsules—250 mg. and 125 mg.; bottles of 60. TAO for Oral Suspension—1.5 Gm.; 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

Rx PFERIC NEW YORK 17, N. Y.

Division, Chas. Pfizer & Co., Inc. SCIENCE FOR THE WORLD'S WELL-BEING

®TRADEMARK



Protection Against Loss Of Income From Accident & Sickness As Well As Hospital Expense Benefits For You And All Your Eligible Dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS

OMAHA 31, NEBRASKA

Since 1902

P. A. F. CASE **pH⁴**

℞ (*Fortified Triple Strength*)

Improved Douche Powder

G-11® (Hexachlorophene USP), deodorant

FORTIFIED — with Sodium Lauryl Sulfate and Alkyl Aryl Sulfonate.

DETERGENT — High surface activity in acid and alkaline media.

LOW SURFACE TENSION — Increases penetration into vaginal rugae and dissolution of organisms such as Trichomonas and fungus.

HIGH SURFACE ACTIVITY — Liquifies viscus mucus on vaginal mucosa releasing accumulated debris in the vaginal tract.

Buffered to control a normal vaginal pH.

ETHICALLY PKGED, net wt. .....10 oz.

Mfg. by G. M. CASE LABORATORIES
San Diego 16, Calif.

HOBBY HORSE RANCH SCHOOL

A School For Exceptional Children

The Hobby Horse Ranch School is both home and school for a small group of children. It welcomes the child who is mentally retarded and physically handicapped as well as the backward child who suffers no physical handicap.

The Hobby Horse Ranch School is a branch of Fairview School in Fishkill, New York which was established in 1936.

Directors: Blanche C. Lightowler, B.A.
Matthew W. Lightowler

P.O.B. 44, Cortaro, Ariz.

ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR CONDITIONING FOR YEAR ROUND COMFORT

The Franklin Hospital

Hospital License No. 71
Registered A.M.A.
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Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U. S. Pat. Off.

Why risk trial-and-error therapy in potentially serious infections?

TRADEMARK, REG. U. S. PAT. OFF.

TRADEMARK, REG. U. S. PAT. OFF.—THE UPJOHN BRAND OF CRYSTALLINE NOVOBIOCIN SODIUM

TRADEMARK, REG. U. S. PAT. OFF.—THE UPJOHN BRAND OF TETRACYCLINE

TRADEMARK

The Upjohn Company, Kalamazoo, Michigan

Upjohn

Make new Panalba*

(PANmycin† Phosphate plus ALBAmycin**)

your broad-spectrum antibiotic of first resort

effective against more than 30 common pathogens, even including resistant staphylococci.



Available forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Panmycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride .....250 mg.
Albamycin (as novobiocin sodium)...125 mg.

2. Panalba KM,†† Flavored Granules, 60 cc. size bottle. When sufficient water is added to fill the bottle, each teaspoonful (5 cc.) contains:

Panmycin (tetracycline) equivalent to tetracycline hydrochloride .....125 mg.
Albamycin (as novobiocin calcium)..62.5 mg
Potassium metaphosphate .....100 mg.

Dosage:

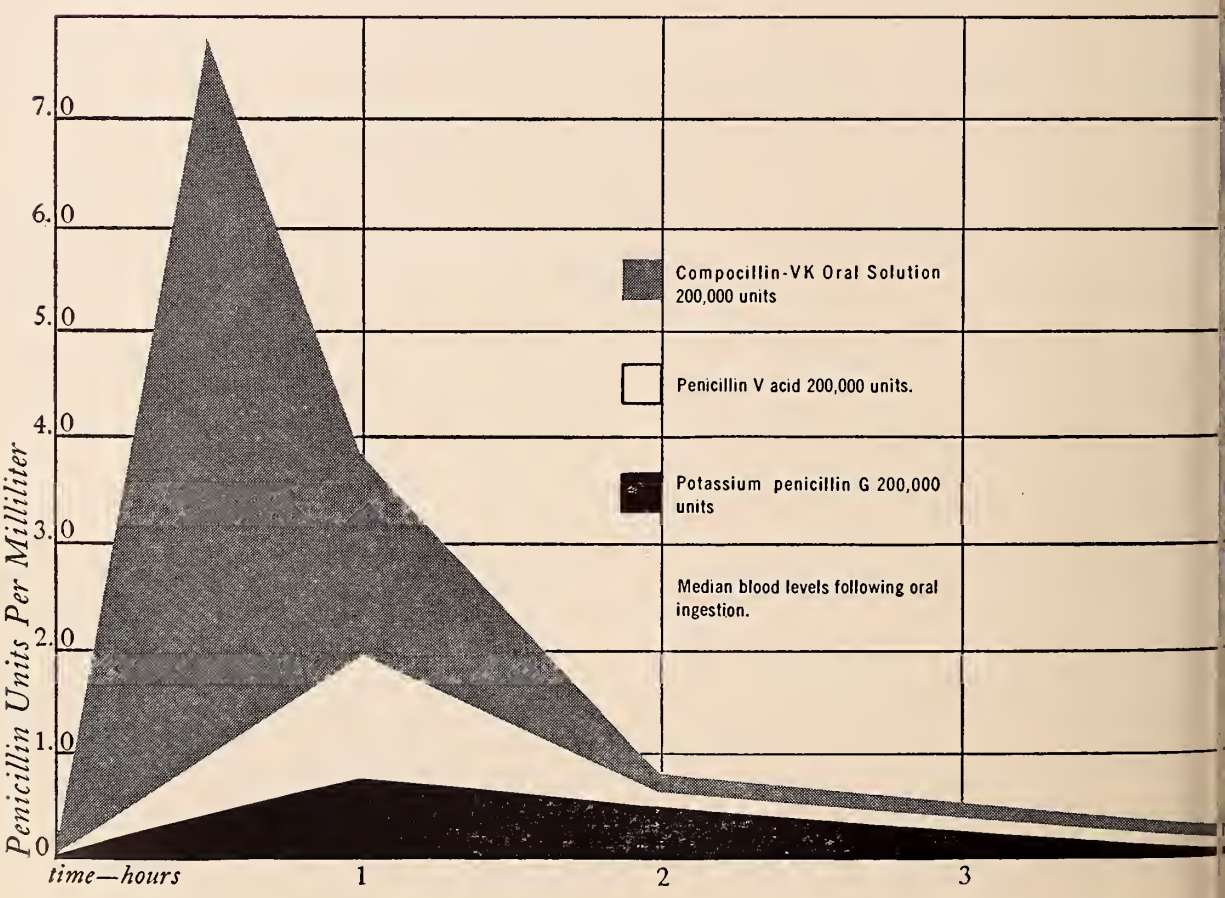
Panalba Capsules
Usual adult dosage is 2 capsules q.i.d.

Panalba KM Granules
For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 20 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.



Now–from Abbott Laboratorie

Good-tasting, cherry-flavored.





809153

oral solution of potassium penicillin V



us the higher blood levels of potassium penicillin V



POTASSIUM PENICILLIN V

Compocillin®-VK

granules for oral solution

, for oral administration, COMPOCILLIN-VK
ules offer you a solution of potassium pen-
n V. Developed by Abbott Laboratories,
granules are dry and easily reconstituted
water.

ne clear, red solution has a fresh, cherry
or, is taste-tested and is well-accepted by
ents. And they'll get those high potassium
cillin V blood levels (note chart).

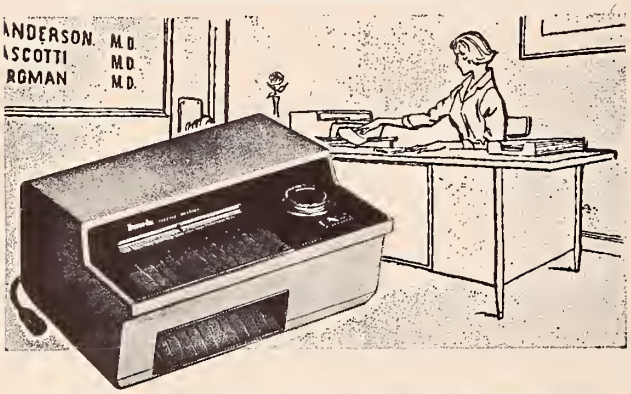
OMPOCILLIN-VK is indicated for all infec-
s susceptible to oral penicillin therapy. Also,
eating recurring rheumatic fever and in
aging rheumatic carditis. COMPOCILLIN-VK
be used in counteracting complications
severe viral attacks.

The initial recommended dose: In acute infections, the range is from 125 mg. (200,000 units) three times daily to 250 mg. (400,000 units) every four hours. For young children, the adult dose may be reduced in proportion to age and weight. For prophylactic use, 125 mg. (200,000 units) may be administered once or twice daily.

COMPOCILLIN-VK Granules for Oral Solution come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of the reconstituted solution represents 125 mg. (200,000 units) of potassium penicillin V. The dry granules stay stable under ordinary room temperatures. When reconstituted, the solution will remain potent for two weeks under refrigeration.

Abbott

No more late billing...



All-Electric machine makes itemized statement in 4 seconds . . . right from your account cards

No more late billing when you send itemized statements made in just 4 seconds. With the new THERMO-FAX "Secretary" Copying Machine, your nurse or receptionist copies office account cards for only 2¢ per copy. This copy *is* the bill. You save time, simplify your billing . . . and your patients get the itemized statements they want. New All-Electric copy maker costs just $299*. Dry process eliminates chemicals or special installations.

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Since 1908

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Established 1904

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PASADENA, CALIFORNIA

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glucosamine potentiated tetracycline

IN RESEARCH

1. HIGHEST TETRACYCLINE SERUM LEVELS[1,2]
2. MOST CONSISTENTLY ELEVATED SERUM LEVELS[1]
3. SAFE PHYSIOLOGIC POTENTIATION WITH A NATURAL HUMAN METABOLITE[3]

AND NOW IN PRACTICE

4. MORE RAPID CLINICAL RESPONSE[4,5,6]
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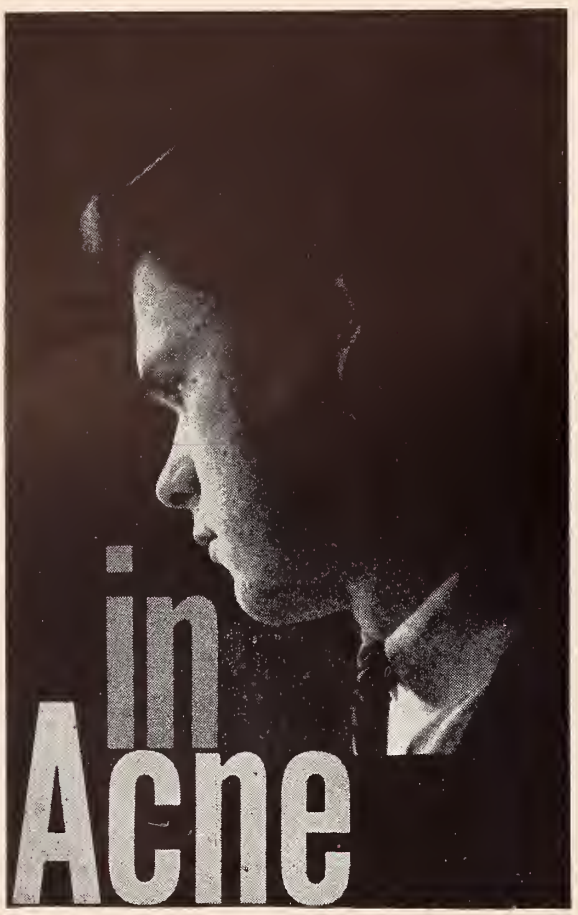
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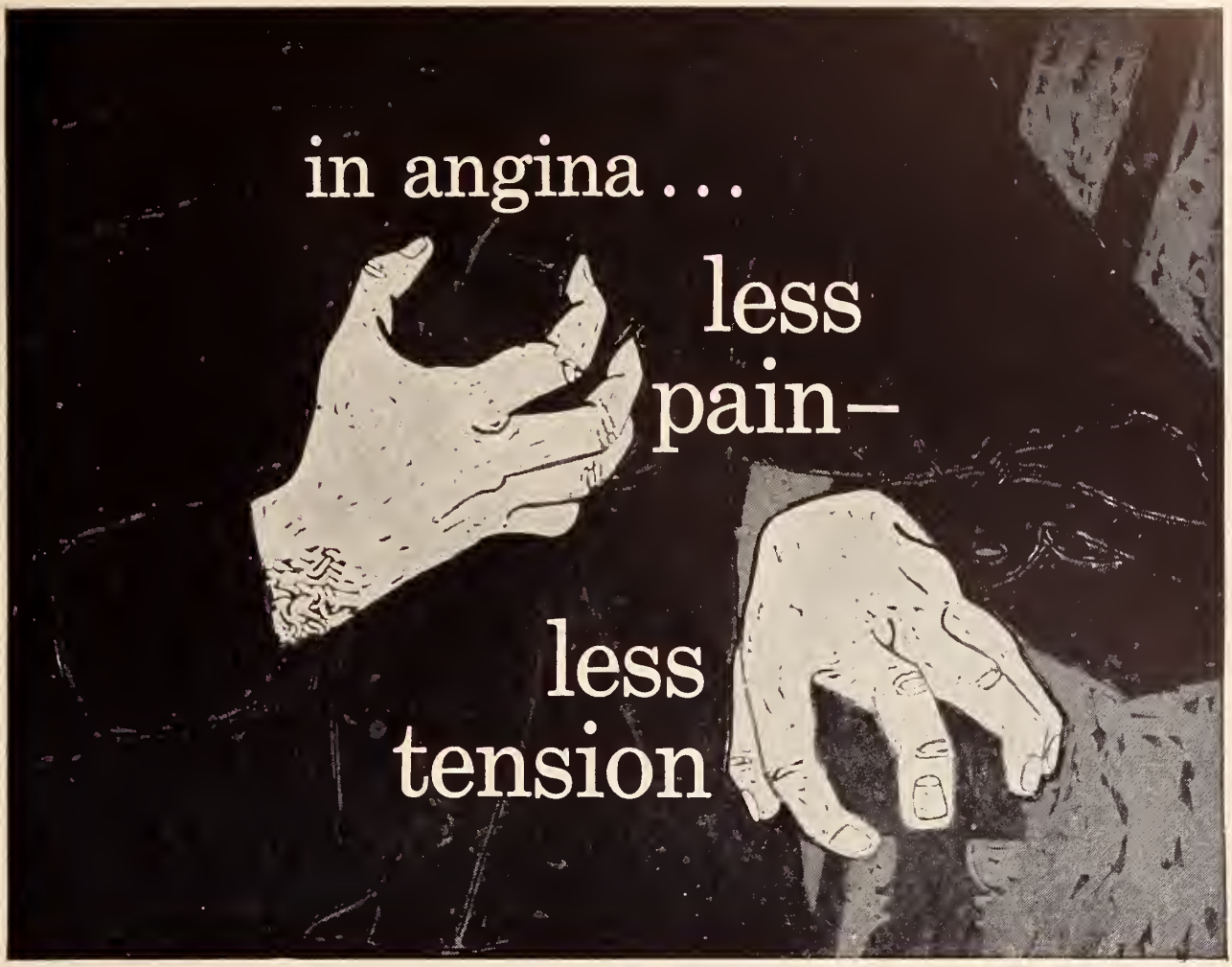
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Whole milk	24	480	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

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FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Evaporated milk	11	484	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

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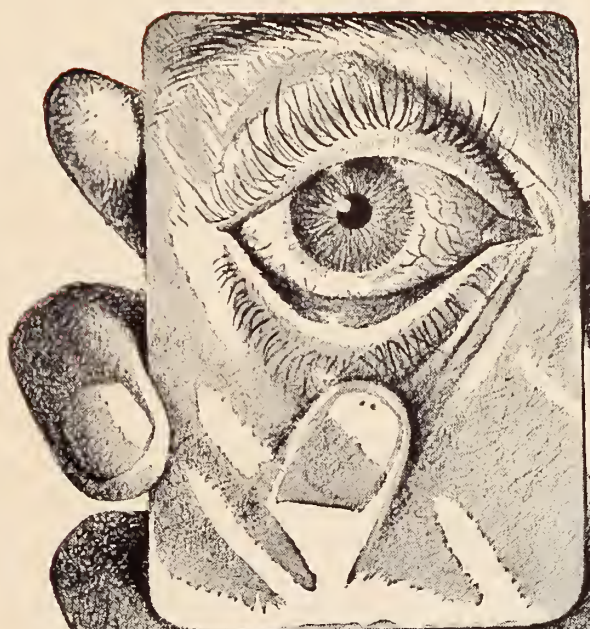
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ARIZONA MEDICINE
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Original Articles

THE CYTOLOGY AND TREATMENT OF CARCINOMA OF THE UTERINE CERVIX*

James F. Nolan, M.D. John W. Kizziar, M.D. Fremont E. Davis, M.D.
Los Angeles, Calif.

FOR SOME TIME there has been an interest in factors which might have a prognostic influence in the management of patients treated for carcinoma of the uterine cervix. This has been especially true in regard to the application of radiation therapy as the primary treatment modality. Obviously such an interest becomes important because of the desire to improve results of treatment. If the significance of variations in biologic factors inherent in the tumor or in the host herself can be ascertained, there is the possibility that they might be modified toward improvement in radiation reactions and eventually improved survival rates.

Quite naturally it is difficult to assess such factors in mathematical terms and to evaluate them from a statistical point of view. One can hardly speak of "invasiveness" of a tumor without referring to "host resistance" or vice versa. Moreover, it is impossible to analyze the results of treatment without referring to the amount and type of treatment applied in terms of the patient material at risk. Despite such difficulties inherent in the clinical evaluation of treatment, the aforestated desire to improve results continues to stimulate therapists toward critical analyses of their methods. Since these are clinical problems, most of these studies are retrospective in nature and are subject to variations in interpretation, but this does not detract from their necessity.

This discussion will concern itself with some of our experiences in relation to an interest in factors which might influence prognosis in patients treated for carcinoma of the cervix uteri by radiotherapeutic means. Some years ago, a study was made of such factors and the usual conclusions were reached; namely, the condition of the host as measured by the age of the patient had no prognostic influence, nor did the character of the tumor as measured by its histologic grade(2). The factor most influential in terms of outcome of treatment appeared to be the advancement of the tumor itself in terms of the gross clinical staging, which was to be expected. It is probable that this factor overshadowed the others which could be measured and recorded. It is also quite probable that local secondary infection and generalized debility associated with secondary anemia do lend themselves toward a poorer prognosis, but enough data were not available to study these specific phases. However, these factors have been analyzed by others and are important in that they can be controlled by antibiotics, transfusions, and dietary regimes(12).

Prognostic Influence

In our study, we did find that the amount of treatment delivered had a definite prognostic influence but in a paradoxical fashion. In patients who had advanced lesions, the results were better with high parametrial dosage, but in patients with early lesions, the results became poorer with high parametrial dosage. This concept of the deleterious effect of over-dosage was not new

*From the Los Angeles Tumor Institute.
The cytologic work is supported by the Damon Runyon Cancer Fund.

and had been described some 17 years ago by the late Dr. Margaret Tod, of Manchester(14). She named this finding the "supralethal effect" and attributed the deleterious effects of overdosage to an excessive destruction of the normal tissues adjacent to the cervix in the parametrial triangle at the crossing of the ureter and uterine artery.

This concept of too much radiation as well as too little being of prognostic significance has led to studies of optimal dosage. The nature of radiation therapy necessitated analyses of time of delivery as well as doses delivered to specific areas in the parametrium for patients classified within specific gross stages of the disease. It was found that in patients with advanced stages of the disease, the doses delivered to the lateral parametria had to be above a certain minimal level before clinical cures would result. Conversely, in patients with early lesions confined to the cervix, treatment failures began to appear after certain maximal doses were delivered to the proximal parametrium. There seemed to be a range of dosage throughout the tissue at risk in the pelvis which was associated with optimal results(13). Findings similar to these were found by Garcia(4) and others (1, 3), which further indicated the effect of the treatment applied upon prognosis.

In recent years, our interest has been in the application of this theoretical concept of optimal dosage, since the amount of treatment is the one factor having a bearing upon prognosis which is under the direct control of the therapist. Since 1952, when the 1,000-curie Cobalt 60 teletherapy unit became available to us, we have tried to apply these ideas concerning optimal dosage directly upon our clinical material. Various analyses of early results have been made which indicate a fairly satisfactory adherence to levels of dosage which should be "adequate." However, there continue to be failures even in early cases, despite the availability of megavoltage apparatuses. This has led to a continued interest in measurable biologic differences which might account for such failures.

Grahams et al.

Along these lines, the cytological work of the Grahams(6,7,8) has been most fascinating. In studying vaginal smears, they noted certain measurable changes in the character of the normal vaginal cells exfoliated after radiation therapy, which they described in 1953 as RR (or radiation response). These were qualitatively recognizable by an increase in cell size, increase in nuclear size, and vacuolization of the cytoplasm. They found that the recognition of this RR effect could be reproduced by other observers in their laboratory and could even be reduced to a mathematical term as an average normal cell size. These changes were directly correlated with results of treatment by radiation therapy. Further, they described an ability to change a poor RR to one of satisfactory levels by the administration of testosterone, progesterone, or alpha-tocopherol during treatment.

Similar changes were noted in the exfoliated cancer cells in the vaginal smear, which included increase in cell size, cytoplasmic vacuolization, and deeper staining nuclei, but these could not be measured during the entire treatment, since cancer cells were prone to disappear from the smear.

S. B. Gusberg(11) has made similar observa-

CARCINOMA OF THE CERVIX UTERI

Patients Treated with Cobalt 60 plus Radium, 1954 to 1957.
Relationship between SR and clinical result of treatment.

	SR ≤7 per cent		SR 8 per cent – 10 per cent		SR ≥11 per cent	
	SUCCESS	FAILURE	SUCCESS	FAILURE	SUCCESS	FAILURE
ALL STAGES	38 (95 *per cent*)	2	6	4	20 (61 *per cent*)	13

	SR ≤9 *per cent*		SR ≥10 *per cent*	
	SUCCESS	FAILURE	SUCCESS	FAILURE
STAGE 1	21	1	11	2
STAGE II	16	2	7	6
STAGES I & II	37 (92 *per cent*)	3	18 (69 *per cent*)	8

tions on tissue sections from cervical biopsies during treatment. Special staining for nucleoproteins has shown changes in the cancer cells themselves, which are associated with the destruction of the RNA which is a precursor to cellular death and, in itself, a radiation response.

Glücksman(5), in England, has approached this problem of radiation response in terms of a differentiation of tumor on a histologic basis rather than a cellular one.

The Grahams have carried their work further and have described a distinctive feature in the vaginal smear by which they can prognosticate whether a tumor will respond before treatment is given. This lies in the proportionate number of a certain type of normal benign basal cell in the vaginal smear. This cell is called the SR (or sensitivity response) and is described as being the same size as other basal cells, but containing finely granular cytoplasm, taking a lavender stain rather than a pale blue. There are cytoplasmic vacuoles with red granules about their periphery, and the nucleus may be slightly larger than the usual basal cell. They have found that if these cells be less than 10 per cent per 100 benign vaginal cells, the radiation response will be poor. If the proportion of these cells be higher, the response will be good.

Correlations

A study of clinical results correlated with these findings indicated that patients with low SR would do poorly when treated by radiation means, but would do well when treated surgically. Conversely, they showed that patients with a high SR would do well with radiation therapy, but poorly with surgery. Meigs(9, 10) has commented upon this latter feature and has pointed out that in patients treated by surgery for carcinoma of the vulva as well as for carcinoma of the cervix, a higher proportion of lymph node metastases is seen in patients with high SR. He has suggested that the SR may be a measurement of host resistance to lymphatic invasion, and that the poor results from surgery in the face of a high SR are a demonstration of this.

Because of the tremendous importance such findings as these would make upon the management of patients with carcinoma of the cervix, we have tried to reproduce these results.

Since 1954 we have attempted to obtain pretreatment vaginal smears and repeated weekly smears while the patient is under treatment, as well as follow-up specimens from one to three weeks and six weeks after the completion of treatment. The smears are obtained as simple vaginal pool aspirations, fixed and stained in the usual manner. Our technician cytologists were trained at the Massachusetts General Hospital to follow the same technique and criteria of evaluation as are used there. The material obtained has been reviewed by a competent pathologist who is interested in cytology.

We have only recently tried to correlate the cytologic findings with clinical results in patients treated primarily by radiation therapy and, in general, have been unable to reproduce the findings reported by the Grahams. There were 83 patients of all stages upon whom adequate cytologic material was obtained for review. When the SR criterion in the pre-treatment smear was used and the patients classified as SR absent (0-7 per cent), SR poor (8-10 per cent) and SR good (11 per cent), we found success rates of 95 per cent, 60 per cent, and 61 per cent, respectively, for each category, which is exactly opposite to the expected result. However, in this group of patients there were five Stage 0 patients which would be considered universally responsive to treatment, and 12 Stage III and IV patients, which are generally unsuccessfully treated. When these are eliminated, there remain 66 Stage I and II patients in whom the individual results of treatment should be variable. In this group, the patients showing 0-9 per cent SR in the pre-treatment smears have been 92 per cent successful to the present time. Those with 10 per cent SR have been only 69 per cent successful.

Further Findings

The RR response in benign vaginal cells was

CARCINOMA OF THE CERVIX UTERI
Stage I and II Patients Treated With Cobalt 60 Plus Radium, 1954 to 1957.
Relationship between disappearance of cancer cells from vaginal smear with cervical dosage and clinical result.

DOSE AT CERVIX	SUCCESS	FAILURE
	Per Cent	
<5,000 r	22 (88)	3
5,100 r to 7,500 r	19 (83)	4
7,501 r to 10,000 r	18 (78)	4

also studied, but only on a qualitative basis, which does not lend itself well to evaluation. An attempt to measure an average cell size is being done, but the data are not as yet complete. Measurements of the increase in average cancer cell size also have been attempted but (as noted by the Grahams) these cells are oftentimes absent in the smears during the later stages of the treatment. However, in reviewing this cytological material from this point of view, it was noted that recognizable cancer cells at times disappeared from the smear even before adequate dosage levels were reached. We found the last positive or doubtful smear to be obtained with doses to the cervix of less than 5,000 r in 25 cases. The last positive smear appeared in 23 cases when the cervical dose was from 5,100 to 7,500 r, and the last positive smear when the cervical dose was from 7,500 to 10,000 r in 18 cases. When these findings were correlated with clinical results, we found only a slight significance, since the success rates were 88 per cent, 83 per cent, and 78 per cent respectively for each category. However, we thought it advisable to attempt to correlate this early disappearance of cancer cells from the smears during therapy with the SR in the pre-treatment smear. Here, in the theoretically most advantageous situation, when cancer cells were absent after cervical doses of 7,500 r or under, and the SR was 10 per cent or higher, there were six failures in 18 cases, or a success rate of 67 per cent and a failure rate of 33 per cent. In the least favorable situation from a prognostic point of view, when the cancer cells did not disappear until a cervical dose of 10,000 r had been given, and when the SR was 9 per cent or less, there were two failures in 16 cases, or an 88 per cent success rate and a 12 per cent failure rate. This was again in direct divergence from what one would like to see, if we are to attribute prognostic significance to findings in the vaginal cytology.

In summary, it must be said that there can be many reasons for our inability to reproduce data from vaginal cytology upon which a prognosis can be made for patients with carcinoma of the cervix treated by means of radiation therapy. The most likely one is that we are not interpreting the cytologic findings correctly. If this be true, we can say that the method is faulty only because it is difficult for the uninitiated to learn.

We wish to acknowledge the assistance of our cytologic technicians, Mrs. Anita Seleen and Miss Mildred MacMillan, in the preparation of the cytologic material for this presentation.

CARCINOMA OF THE CERVIX UTERI

Patients treated with Cobalt 60 plus Radium, 1954 to 1957

Relationship between SR, disappearance of cancer cells with cervical dosage, and clinical results

	SR ≤9 per cent		SR ≥10 per cent	
LAST POSITIVE SMEAR WITH CERVICAL DOSE	SUCCESS	FAILURE	SUCCESS	FAILURE
<7,500 r	23	1	12 (67%)	6 (33%)
>7,501 r	14 (88%)	2 (12%)	6	2

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THE CORRELATION OF BRONCHOSCOPIC AND BRONCHOGRAPHIC FINDINGS IN THE MIDDLE LOBE SYNDROME*

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SINCE GRAHAM and his co-workers[1] in 1948 reported on chronic obstructive pneumonitis of the right middle lobe, this condition has been given the name of the middle lobe syndrome. While the majority of the workers are of the opinion that this is a definite clinical entity, a few believe that it occurs in other portions of the lungs. While the actual diagnosis could only be made on the operating table and by pathological findings, a definite diagnosis can be made by the use of bronchoscopy and bronchography.

The middle lobe syndrome originates primarily as a bronchostenosis of the right middle lobe bronchus due to involvement of lymph nodes which surround the bronchus near its origin. If the compression is temporary, no permanent damage results. If the lymph node adenopathy persists, changes in the lung parenchyma occur due not only to the pressure of the lymph nodes, but due to inflammatory changes in the bronchial wall itself. A secondary pneumonitis is commonly seen which leads to bronchiectasis, though if the obstruction is permanent, atelectasis is the result.

X-ray findings show commonly a shadow especially in the right lateral chest films in the area of the right middle lobe. A definite diagnosis of middle lobe syndrome could be made on bronchoscopy and bronchography. Bronchoscopy will reveal varying degrees of inflammation and obstruction of the middle lobe bronchus and secretion which may be thick and blood tinged. Bronchography may show narrowing or complete obstruction of the bronchus, though if the obstruction has been relieved, bronchiectatic



Figure 1



Figure 2

*From the Veterans Administration Hospital, Tucson, Arizona. Presented at the Meeting of the Arizona Chapter, American College of Chest Physicians, May 2, 1958.

changes or close grouping of the bronchi due to atelectasis may be demonstrated.

Combinations of Findings

The 11 cases which have been observed at this hospital illustrate the various combinations of findings which may be seen on bronchoscopy and bronchography. Cases 1, 6 and 10 showed failure of the right middle lobe bronchus to fill at this time of bronchography (Fig. 1) but at bronchoscopy, only Case 6 revealed compression of the bronchus, Case 1 showing injection of the orifice and Case 10 the presence of creamy secretion. Cases 2, 3 and 7 showed evidence of bronchiectasis on x-ray examination (Fig. 2) and at the time of bronchoscopy, all three showed the middle lobe orifice to be injected and containing thick secretion. Cases 8 and 9 showed injection of the orifice and the presence of secretion on bronchoscopy, but bronchography was not performed. Cases 4 and 5 demonstrated bronchiectasis on bronchography, but were not bronchoscoped. Ten of these cases underwent surgery and all were found to have a destructive process in the right middle lobe. In three of the cases a large mass of lymph nodes compressing the right middle lobe bronchus was found.

Summary

The etiology, anatomy and pathology of the middle lobe syndrome have been reviewed. It has been demonstrated that by means of bronchoscopy and bronchography, a definite diagnosis of this condition can be made prior to surgery.

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Case	*Sex*	*Age*	*Bronchoscopy*	*Bronchography*	*Pathological Report*
1.	M	36	Orifice injected	Lobe did not fill	Lobe shrunken and atelectatic
2.	M	39	Orifice injected and secretion present	Bronchiectasis	Atelectasis and bronchiectasis
3.	M	33	Secretion	Bronchiectasis	Atelectasis. Bronchus surrounded by lymph nodes
4.	M	25	None	Bronchiectasis	Atelectasis and bronchiectasis
5.	M	38	None	Bronchiectasis	Bronchiectasis Lymph nodes enlarged
6.	M	32	Orifice compressed. secretion	Lobe did not fill	Bronchiectasis and large mass of lymph nodes compressing bronchus
7.	M	34	Orifice injected and secretion present	Bronchiectasis	Atelectasis and bronchiectasis
8.	M	66	Orifice injected and secretion present	None Atelectasis on x-ray	No surgery
9.	M	41	Thick, blood-tinged secretion	None Consolidation & cavity on x-ray	Abscess
10.	M	32	Creamy secretion	Lobe did not fill	Bronchiectasis
11.	F	28	None	Bronchiectasis	Atelectasis and bronchiectasis

THE ANALYSIS AND TREATMENT OF THE COMMON FOOT DISORDERS*

Joseph C. Risser, M.D.
Pasadena, Calif.

THERE ARE many causes of painful feet, but let us confine ourselves to that very commonplace subject, one that is known as a "flat foot" or, should we say in little better educated circles, a pronated foot. But let me diverge and still change it to say that it is a foot that has a forefoot abduction in relation to the rear foot.

The conventional treatment of the pronated foot is one that continues to support the pronation by the use of arch supports and stiff shanks, which competes with gravity and is not corrective. I would like to present for your consideration a physiological approach to this foot problem; a theory which leads to therapy. Also, I shall show you a method of recording the foot so that you will know tomorrow, or a year from now, or anybody else might understand just what is meant by an abducted forefoot and to what degree it is abducted. This method will enable you to make comparisons from time to time to see whether or not you are getting any improvement in that foot, and will indicate to you the therapy for correcting pronation. I think theories are always good that lead to therapy.

In order that we may acquaint ourselves with the foot, I have a specimen which I would like to show you. Let me emphasize just the two factors which I want to show you, namely, that this foot really consists of two parts; a forefoot, and a rear foot. The rear foot consists of the os calcis and its partner, the astragalus. The os calcis is probably the largest concentration of bone for its size than any bone in the bony structure. It was made large and heavy because of the usage that is given this bone. We might say that the rear foot is the landing gear and as we walk, the body weight lands on the os calcis. Because of that weight thrust, this bone is large and heavy and massive, illustrating that our bodies are the results of the stresses we live with.

In the equinus footed animals or quadrupeds, the os calcis is a narrow little bone that seldom touches the ground. Therefore, I want to emphasize again the fact that our bodies are the result of the stresses we live with, and if we can analyze those stresses intelligently, then we will know how to cope with them and use our bodies efficiently.

The forefoot can be considered the take-off gear. It consists of the mid-tarsal bones, cuboid, scaphoid and cuneiforms, and the five metatarsals with their extensions, the toes. (The plantar surfaces of the ends of the toes are well padded with interlacing fibrous strands, an excellent surface for weight bearing). The purpose of the toes is to add to the length of the foot which increases the functional efficiency of the foot which acts as a lever of the third order. Less effort is needed to lift a weight when the lever arm is longer. Archimedes once said that if he had a lever arm long enough and a fulcrum to rest it on he could lift the world.

Role of the Toes

The toes contribute to the length of the foot when they are plantar flexed. If dorsiflexed, the well padded plantar surfaces of the toes do not get the weight thrust in the take-off in walking. With the toes dorsiflexed the heads of the metatarsals are the take-off points and get the weight thrust. Unfortunately the heads of the metatarsals are not padded well like the plantar surfaces of the ends of the toes. This localized weight thrust on the metatarsal heads results in callouses which are greater over the second and third metatarsal heads, the pressure being greater because the second and third metatarsals are longer. Those toes are more useful and much more effective if they are in the same sagittal plane in which the knee works and therefore we must have a foot position straight ahead, not turned out, otherwise we do not get the full benefit of the take-off point.

Connecting the forefoot with the rear foot is the astragalo-scaphoid joint with its counterpart, the calcaneo-cuboid joint. This junction is one-third the distance from the tip of the heel to the tip of the great toe.

The astragalo-scaphoid joint has a large, rounded or trochlear surface, allowing a great range of motion in either forefoot abduction or forefoot adduction.

The plantar fascia, uniting the forefoot with

*The Audio-Digest Foundation presents a lecture by Dr. Joseph C. Risser, Professor of Orthopedic Surgery at the College of Medical Evangelists.

the rear foot, is attached anteriorly behind the metatarsal heads and posteriorly to the under surface of the os calcis. Acting as a bow string, it aids in maintaining the longitudinal arch of the foot.

With the forefoot adducted, body weight thrust is carried down from the tibia to and through the outer side of the foot which approximates the ground. If the forefoot is abducted, weight thrust comes on the inner side of the foot on the plantar fascia, which is that broad bow string holding the forefoot and rear foot together to form the long arch of the foot. If the integrity of the plantar fascia is poor, as seen in poor health and deficiency diseases, the plantar fascia will stretch and allow the inner side of the foot to approximate the floor. Soft tissues do not thrive under weight thrust. Whereas weight thrust on the outer side of the foot, made possible by an adduction of the forefoot (on the rear foot), is carried down through the ladder-like layer of metatarsal bones. Bones thrive only under weight thrust. Thus the healthy foot is possible when the weight thrust is on the outer side of the foot, that is, with the forefoot adducted on the rear foot.

Inherited Contracture

One deterring factor in our weight-bearing mechanism is the equinus contracture which we inherit, the shortened distance of the soft tissue structures from the os calcis up to the knee, namely the calf muscles and the tendon achilles. We inherit this equinus contracture from our quadrupedal ancestry. The baby illustrates this when he first starts to walk. He will walk on his toes, maybe for hours — maybe for days. Some children do it for two or three years, indicating that they have not yet become true bipeds. They still are quadrupeds.

If that heel cord is short, the heel rises early and the weight thrust of the body is then thrown upon the mid-tarsal area, the astragalus-scaphoid junction, allowing stretch of the plantar fascia and abduction of the forefoot. If the plantar fascia does not give way, but remains intact as the body weight is shifted forward over the mid tarsal area to the metatarsal heads, we put a preponderance of weight thrust where it was not designed for much weight-bearing. Nature did not pad those areas well, therefore they callous very easily. But if you will compare the tip of the toe, the fleshy part of the toe and the metatarsal head, you will find that nature padded the end of the toe with a very thick fibrous tissue, an interlacing fibrous tissue, that can bear weight easily. So we should have our ultimate take-off point on the ends of the toes and not on the metatarsal heads. Now, if we have metatarsal head callouses, which many people have, we must conclude then that we have a short heel cord that contracts early and raises the heel early on the step forward, and thus puts a preponderance of localized weight-thrust upon the metatarsal head. The logical remedy is to stretch out the heel cord.

Unfortunately, as we progress and grow up, we wear shoes. The conventional idea is to put heels on the shoes, which only continues to increase the shortening of this inherited contracture. To avoid this problem of increasing heel cord contracture and also lessen our inherited equinus contracture, our shoes should have little or no heel. Exercises are also designed to stretch the equinus contracture. This equinus stretching becomes a continuous process when walking with little or no heels on shoes. You hear people say they cannot wear a shoe without a heel. Naturally they cannot, because they have not continued to stretch out that contracture. Remember the two great enemies to good body health and good body control are gravity, with which we cannot compete, and our own joint contractures. We can cope with contractures if we know how to take care of them intelligently. Therefore stretchng out the heel cord is important.

Heels and Arches

The question has been raised — "Why do we have heels on shoes?" Some people trace the origin of the heel to Napoleon and Louis XIV, who, being short men, wanted to be taller in order to impress their fellow-men. But Alfred Edward Wiggam has a different explanation. He was a biologist who said it was all due to the women. He said women, in a romantic mood, put heels on their shoes so they would not be kissed on the forehead.

Other questions that arise about the foot — "What should be the height of the arch?" "Why do we have an arch in the foot?" "Is it necessary?" There is only one reason why we have an arch in the foot and that is to house the important structures on the bottom of the foot. If we had no housing gear to take care of those nerves and vessels and muscles on the under side of

the foot, we would walk directly on those muscles and vessels. But unprotected vessels do not tolerate weight thrust. Thus we must have a housing mechanism that protects these vital structures under the foot. This housing mechanism is the arch. Now the height of that arch is not significant, just so that it is high enough to house those vital structures, to keep us from walking on our veins and our muscles and our nerves. The essential point is how are we putting weight thrust on that foot? Do we put weight thrust through bone on the outer side of the foot that will actually bear weight and thrive, or do we put it on the soft inner side of the foot that will not bear weight?

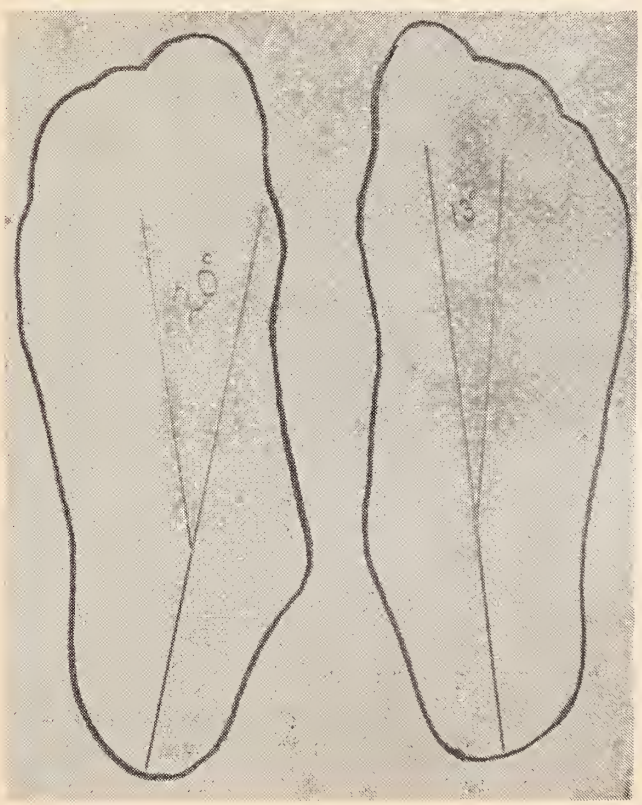
Now another factor in regard to the heel on the shoe — as soon as we put a heel on a shoe, we elevate the toes and stretch the plantar muscles, the short flexors on the foot. Let me just demonstrate that by showing you a shoe, the heel of which is very high. In order to get thrust down flat on a flat surface with that high heel the toes must be elevated and in so doing they are stretching out the muscles — the flexor muscles — on the bottom side of the foot, and remember, a stretched muscle is always a weak muscle. If you want to make a muscle strong, give it the mechanical advantage of shortening that muscle; that is a very important principle that we must use in re-educating the polio cases. Frequently we forget that. If you want a strong muscle, shorten it, and if you want a weak muscle, you will weaken it by stretching it. Therefore the high heel again would merely stretch the plantar muscle on the under side of the foot.

A tracing is made of the natural weight-bearing foot with a pencil that is held perpendicular to the paper on which the patient stands, not dipping down obliquely to get underneath as far as possible, but to reflect the outline of the weight-bearing mechanism of the foot onto this flat surface. In so doing, we may have then a bulge at the astragalus scaphoid area which signifies a predominance of weight thrust on the inner side of the foot. By bisecting the astragalus scaphoid area which is one-third the distance from the tip of the heel to the tip of the toe, bisecting the point of the heel and bisecting the area between the metatarsal heads, lines connecting these bisecting dots are drawn and the angle of abduction or adduction can be measured from these lines. Comparative tracings will show any progress of the forefoot in illustration. The left foot has a severe abduction of 20 degrees. The right foot has only a 13 degree abduction. Then you might ask, "Why is one foot worse than the other?" They both bear weight. At each step they take, the same amount of body weight comes down on it. Explanation of this difference is based on the anatomical variation in leg length in this particular case illustrated. The longer leg carries the greater equinus contracture, resulting in a greater forefoot abduction.

Weight Distribution

The tracing shows that at the astragalus scaphoid joint, there is a preponderance of weight thrust on the inner side of this foot — less so on the right side. As we look at the feet from behind, we see the left foot showing a greater preponderance of weight thrust on the inner side of the foot. In a corrected position with weight thrust thrown on the outer side, you notice that the person corrects the right one much easier than he does the left one. There is still a small amount of weight thrust on the inner side of the left foot where the tendon achilles can be seen deviating. On the right, the tendon is relatively straight.

When the feet are held corrected, that is, the weight on the outer side of the foot, dorsiflexion is limited. But with the feet incorrect, that is, weight on the inner side of the feet, dorsiflexion



is dissipated in the stretch of the plantar fascia and abduction of the forefoot. Therefore it is quite important that you be able to teach your patient how to stretch his heel cord — to hold the foot so that it allows weight thrust on the outer side of the foot. Then he does actually stretch the heel cord as he exercises.

Tracings of the feet of primitive people who do not wear shoes show an adduction of the forefoot with the body weight thrust placed on the outer side of the foot, where body weight is borne by bones which approximate the ground. Those who walk a great deal will necessarily have broad feet, as the Peruvian Indian who carries 100-pound sacks of cocoa leaves over the Andes mountains. Whereas, the Navajo Indian who rides a Pinto pony will have a less broad foot. In either case, body weight is carried on the outer side of the foot as indicated by an adduction of the forefoot to the rear foot as seen in the foot tracing.

The Mexican primitive, clad in a sandal or hurachi, simulates barefoot walking. His tracing also shows weight thrust on the outer side of the foot as indicated by a forefoot adduction. The inherited heel cord contracture is kept stretched, eliminating equinus of the foot by walking without heels on sandals, or barefoot walking.

The type of shoe which would encourage better feet would be one which simulated barefoot walking. The shank of the shoe which connects the heel of the shoe with the sole should be flexible. The flexible shank would allow adduction of the forefoot at the flexible astragalo-scaphoid junction, and weight would be carried through bone on the outer side of the foot.

Shoe Heels

The heel of the shoe should be reduced to a minimum which would allow stretching of the heel cord with each walking step. The ideal heel would be no more than an eighth of an inch, which would be only enough to keep from slipping. With a completely flat walking surface, there would be a tendency to slip in walking in leather soled shoes. This type of heel is termed a friction heel.

If there is any abduction of the foot — flat foot or pronated foot — with weight thrust on the inner side of the heel, the foot should be protected by an adequate raise in the forward inner corner of the heel. From this forward inner corner raise, the heel should slope down to zero on the outer border of the heel and posteriorly to one-quarter inch of the rounded posterior border of the heel. Because of the angle slope outward and posteriorly, this heel is termed a double angled heel. The forward inner corner of the heel is located at the flexible astragalo-scaphoid joint in the foot which is one-third of the distance from the heel of the foot to the toe as measured on the foot tracing.

The directions to the cobbler should be as follows:

1. Remove present heels, or spring heels seen in children's shoes.
2. Remove stiff shank if present in shoe.
3. The inner length of the heel is one-third





the length of the foot tracing.

4. The outer length of the heel is half an inch less, to correspond to the calcaneo-cuboid joint, the counterpart of the astragalo-scaphoid movement.

5. Raise only the forward inner corner of the heel. The usual height of the raise is from three-eighths of an inch to half an inch. It may go up to three-fourths of an inch, or even an inch, in feet with a severe abduction of the forefoot.

Children tolerate the higher raises better than the adults. With the raise only on the forward inner corner of the heel, it must slope to zero on the outer side and posteriorly to zero within one-quarter of an inch from the curved border of the heel.

Foot exercises are invaluable in the improvement of the feet.

1. To teach the adduction of the forefoot known as the sand-scrape walk, this exercise is best done in the bare feet on the carpeted floor. The forward foot is placed at an angle of 45 degrees with the forefoot inverted, toes touching the floor, and the outer border of the foot in contact with the floor.

2. Stretch the equinus contracture, that is, shortness of the calf muscle and heel cord. The body weight is placed on the outer border of the feet. The heels and toes are kept firmly on the floor — stand two or three feet away from the back of a chair or wall on which the hands rest. Lean forward toward the chair or wall, keeping the heels down on the floor. Gravity pull of the body in leaning forward will stretch the heel cord contracture.

Good Feet Are Possible

3. Heel-toe walking: while bearing the body weight on the rear foot, the heel of the forward foot strikes the ground, with the toes elevated. As the body is carried forward the body weight thrust is transferred from the rear foot to the forward foot, first into the heel then the outer side of the foot and finally the toes. As this occurs, the heel of the rear foot elevates, the knee flexes and is carried forward, leaving only the toes of the rear foot on the ground — which aids in balancing the body on the forward foot. The feet should be kept on the ground as long as possible. The process is continued by repeating the movement in walking. Heel toe walking then becomes a process of rocking forward; the body weight is first on the heel, then into the outer side of the foot, and finally taking off with the toes.

Good feet are possible if one uses the foot physiologically, which is only possible with a flexible shank shoe with little or no heel. The shoes must be wide enough and long enough for a good take-off on the toes.

Editorial Page

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The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notifed within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
8. Illustrations — Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.
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The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

THE WORLD MEDICAL ASSOCIATION

What It Means To The American Physician

IT wouldn't take much argument to persuade any of you gentlemen that our profession — and you personally — need a county medical society, a state society and an American Medical Association.

But the point is that we doctors also need the World Medical Association — and that everyone of us should join and support the United States Committee of WMA — the "international voice of organized medicine."

Now, what is the World Medical Association and what does it do for our profession and for you?

Why did the house of delegates of AMA declare, as it did in November 1956, that:

> "It is difficult . . . to believe that any physician in the United States, and especially any member of the AMA is not a member of the WMA. With conditions as they are in the world today, we owe it to ourselves and to our children, not only as physicians but also as citizens of this great country of ours, to do everything in our power to keep the spark of freedom in medicine glowing throughout the world. . . ."

And the house of delegates went on to declare that:

> "Further expansion of the United States Committee (of WMA) will be necessary if the American viewpoint is to be continually and effectively presented by our spokesmen in the World Medical Association and, through them, before other international bodies, to protect the interests and aims of medicine and the medical profession. . . . Surely, physicians will wish to share in this international effort."

The World Medical Association was born about 10 years ago, out of the desire of the doctors of the free world to perpetuate the international comradeship and professional contacts of wartime. The founders of WMA recognized that the practicing physicians of the world need a strong organization to represent them before other international organizations, such as the United Nations' World Health Or-

ganization, the International Labor Organization and the International Social Security Association, all of which are actively interested in health and medical projects on an international scale.

WMA, AMA, WHO

The founders of WMA recognized that only by uniting with our colleagues in other countries, can we doctors hope to stem the world wide drive toward socialized medicine and maintain the freedoms that physicians everywhere know are basic to good medical practice.

The World Medical Association now has 53 members, comprising the national medical associations of 53 countries throughout the free world. The unit of membership in WMA itself is the national medical association, and the American member of WMA is the American Medical Association. The 53 members of WMA represent, in aggregate, more than 700,000 physicians practicing in every continent in the world.

Some of us confuse the World Medical Association (WMA) with the World Health Organization (WHO) which is an agency of the U.N. As Dr. Louis H. Bauer, secretary general of WMA has put it: The World Medical Association bears the same relationship to the World Health Organization on the international level that the American Medical Association bears to the United States Public Health Service within the U.S.A.

WHO and the USPHS are government agencies, tax-supported, and concerned with public health. WMA and the AMA are voluntary associations, supported by their members, and they represent the views and interests of the practicing physician.

To enable the *individual doctor* to play a direct, personal role in the world affairs of organized medicine, the profession in the United States and in many other leading WMA member countries have formed "supporting committees." The United States Committee of WMA is the largest of these national supporting committees, now numbering some 5,000 leading American physicians among its members.

American doctors have been almost uniquely fortunate so far, in having met our most pressing socio-economic problems by voluntary action, thus repulsing the threat of political domination of our practice in the U.S.A. But this good fortune only emphasizes our responsibility to take the leadership in defending the principles of good medical practice wherever they are attacked and in helping our collcagues in other countries restore these principles wherever they have been compromised.

The solidarity and unity of doctors throughout the free world that has been achieved and given a voice by the WMA has been a big factor in the successful battles that our colleagues in several of the European and Asian countries have fought against various forms of state medicine.

What It Is — What It Does

WMA has set up a standard of 12 principles that must be observed in any acceptable program of medical care under social security — and this is proving to be a rallying point for our colleagues in many countries.

WMA has established an international code of medical ethics, and a modified Hippocratic Oath defining our universal ideals and obligations as physicians. WMA has successfully defended the rights of our profession against recent attempts by certain non-medical organizations to draft a code of international medical law.

WMA has taken the leadership in the field of medical education, having sponsored the first world conferesce on medical education, held in 1959 in Chicago.

WMA is acting to bring about a freer flow of proved therapeutic agents by urging removal of unwarranted trade restrictions and arbitrary licensing requirements in certain countries. It is trying to aid medical research by promoting national pharmacopoeias and by defending the rights of individuals to name new drugs and agents that they have discovered.

WMA has developed an international emblem for identification and protection of civilian doctors engaged in civil defense, and is setting up a central repository of medical records, so that all physicians may be able to preserve their professional identification and credentials in event of war or natural disaster.

WMA is actively promoting international exchanges of medical students and teachers, and arranging lectures and clinical teaching by traveling teams of physicians.

And here are a few of the direct personal benefits that will be available to you as a member of the U. S. Committee of WMA:

1. The privilege of attending the annual

assembly of WMA (to be held this October in Istanbul) with definite status as an official observer for the U. S. Committe;

2. Aid and advice in travel arrangements for attendance at annual assemblies or at other international medical meetings; introductions to professional leaders and colleagues abroad and opportunities for lectures and visits to medical institutions;

3. A subscription to the World Medical Journal, edited by Dr. Austin Smith (who is the editor of the Journal AMA) and other newsletters and publications of WMA.

4. A membership card and a certificate of membership.

These advantages, plus the opportunity to play an active part in making more articulate the international voice of the medical profession, are yours for an annual membership fee of $10 in the United States Committee of the World Medical Association.

The objectives of WMA are your objectives.

EDITOR'S NOTES

THE recent Bulletin of the American College of Surgeons, July-August issue, 1958, suggests that the physician is protected when the public is informed about malpractice. At least, this was the comment of lawyers, doctors, hospital administrators and science writers participating in a public forum on malpractice in San Francisco.

The more pertinent comments to come out of this discussion were: "A doctor encounters many more risks than he did 30 years ago . . .".

". . . medicine is now a business. . . . The doctor does not spend the time that should be spent in diagnosis."

". . . the doctors have a certain amount of control over their insurance companies."

". . . the most important reason of all is the fact that the doctors are a close knit organization and refuse to come into court to testify against their brother physicians."

Res Ipsa Loquitur

". . . lawyers felt that justice did not prevail under those circumstances. As judges are lawyers, the judges talked to the lawyers, and they decided: somthing has got to be done about this! What they did was extend a rule of law — the rule that's called res ipsa loquitur, or, 'the thing speaks for itself.' It's a rule of law which we don't need a doctor to testify, but they still can get a jury."

". . . A physician does not warrant, guarantee or insure a good result; or that he will effect a cure; or even that his treatment will be beneficial. A physician is not an insurer of a patient's life, and he is not an insurer against mishaps or unusual consequences."

". . . The courts, by applying the maxim of res ipsa loquitur, presumes the physician's guilt and forces him to carry the burden of establishing his innocence. This concept has now been extended to all surgical mishaps. . . . These new impositions of liability on physicians stem from the conviction of many judges, that a conspiracy of silence exists among medical men."

The court said: "To apply res ipsa loquitur in all cases where an unexpected result occurs would hamstring the development of medical science. No medical man would dare to use new procedures, especially in surgery, because if injury resulted, he would be prima-facie guilty of negligence."

". . . The ordinary jury is completely incompetent to condemn a person for malpractice."

"Doctors should testify where there really is malpractice, and testify with complete honesty."

Attorneys Also At Fault

". . . On the other hand, attorneys are also at fault for this situation — perhaps to a greater degree. Many of the suits are based not on the facts, whether there is malpractice, but whether under conditions of sentimental surroundings we can get a verdict."

". . . Principle source of the evil is the contingent fee. Attorneys should not get a percentage of the award."

"In any case, the jury should be informed in advance what percentage of the fee the attorney is going to have. That would make a difference, too!"

"The application of res ipsa loquitur — that's completely invalid in medical things."

"It's generally recognized in personal injury cases that if the case is settled out of court, the fee is one-third. If the case is filed or tried, it's 40 per cent."

" . . . One or two others made the broad generalization that malpractice cases are caused by physicians' mistakes. Some of the other causes are greed on the part of the patient, psychotic disturbances, and in some cases, just the feeling on the part of the person that because the result

wasn't what he or she expected, something must have been wrong with the doctor's care."

" . . . It's a definite policy that nobody is going to pay off as a nuisance in a malpractice case."

" . . . A recent study by the California Medical Association of the phychological aspects of malpractice, brought out that there are certain personality traits in people who sue a doctor, and on the other hand, there are some personality traits in doctors who are being sued. So, there is more to it than just the mistakes of doctors!"

" . . . The threat of malpractice has enormously increased the use of X-rays, particularly in the field of orthopedics."

BOOK REVIEW

A PRACTICAL MANUAL ON THE MEDICAL AND DENTAL USE OF X-RAYS WITH CONTROL OF RADIATION HAZARDS

This 31-page illustrated booklet was sponsored by the American College of Radiology and by the American Dental Association. The text was prepared by Richard H. Chamberlain, M.D., with the assistance of Robert J. Nelsen, D.D.S., and the Commission on Units, Standards, and Protection of the American College of Radiology. In substance, this booklet is brief, accurate and practical. Anyone handling diagnostic and therapeutic methods of radiation, particularly the non-specialist in these matters, would do as well by himself as by his patient to review this brochure. Copies are available from the American College of Radiology, 20 N. Wacker Drive, Chicago, 6, Ill.

A.J.B.

LETTERS TO THE EDITOR

MEDICAL SCHOOL REPORT

Sir:

I ASSUME that you, as editor in chief of *Arizona Medicine,* accept full responsibility for the reprint, "A Medical School for Arizona," by Richard Harvill, appearing in the July issue of our magazine, as well as the paragraph that follows the second asterisk. Why did you publish a reprint which you know to be pure propaganda?

Why was the cost of a two-year medical school at Arizona State College published in *Arizona Medicine* exactly as shown in the Arizona State College formal prospectus? Why have you failed to print the cost of a two-year medical school as published in the University of Arizona formal prospectus? The board of regents, the faculty of the University of Arizona and Arizona State College, and the Phoenix public are informed. Why is this information withheld from our colleagues?

From that *stuff* after the second asterisk in this article, am I to assume that the delegates to the Arizona Medical Association's 1958 annual meeting received this fol-de-rol rather than a copy of the prospectus or a report based on the prospectus that was presented to us by President Harvill and representative members of his faculty? I hope your explanation is that certain University of Arizona boosters and those members of the Arizona Medical Association were guilty only of entering into collusion as a means of stopping the expansion of Arizona State College and its bid for recognition as a university, and that President Harvill's choice of words was adopted by the framers of the Arizona Medical Association's resolution because of his superior academic credits.

I await your reply as to the date that I may expect the publishing of the cost figures of the University of Arizona's medical school prospectus. I also await your reply and explanation as to the intent of that *stuff* after the asterisk.

NORMAN A. ROSS, M.D.

Editor's Note: It is rare to be criticized for quoting correctly.

Those individuals who read this publication have undoubtedly noted that material submitted on various aspects of the medical school problem have been published in the Journal. This has included material from Arizona State College at Tempe, the University of Arizona, and the Arizona Medical Association. It is not the intent of the editor to present this material in a biased manner. His opinions have been expressed before in editorials which did not include the choice of location of a medical school when the proper time comes for its establishment.

* * *

ENFORCED HOSPITALIZATION FOR DIAGNOSTIC STUDIES

Sir:

A HIGH proportion of today's citizens carry health insurance, available in a wide variety of forms from a large number of companies. Until

recently, most of the plans have provided no benefit payments for diagnostic x-ray or laboratory services unless performed in hospital laboratories and x-ray departments. To qualify for this coverage, beneficiaries have been required to be bona-fide, in-hospital bed patients; evidently in order to limit liability of insuring companies to necessary procedures. However, from this stipulation, unforeseen and undesirable consequences have arisen.

Many patients through thoughtless self-interest have demanded that they be hospitalized for performance of elective diagnostic services. Although sympathetic physicians, to justify hospitalization and the related insurance claims, have had to resort to diagnostic half-truths and other artifices, such practices have been widespread and insurance claims have mounted.

This has led to the creation of an abnormal, ever-increasing demand for more hospital beds and facilities; and has contributed to a steady increase in hospitalization costs and in the cost of health insurance. More far-reaching, however, has been the diversion of ambulatory patients toward the hospitals, which has had an exceedingly injurious effect upon the whole philosophy of the private practice of medicine.

The private office of the physician is, in the final analysis, the heart and soul of clinical medical practice in the United States. The doctor-patient relationships here established form the basis of our entire free enterprise, fee for service, medical system.

Our hospitals should be built and preserved for sick people who need bed care. The concept of the hospital as a community health center for the care of all private, ambulatory patients by employed physicians is unhealthy and dangerous. Employment of all physicians by hospitals, clinics and health centers is a very short step from employment of all physicians by the government.

The newly available Blue Shield coverage in Arizona for diagnostic services outside the hospital will probably do much to strengthen the position of the private medical practitioner. It seems reasonable also to hope that this step forward may be accompanied by an easing of the demand for hospital beds, and by a corresponding decrease in the costs of hospitalization.

D.E.M.

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PSYCHOSOMATICS: A Series of Five Lectures
edited by **Joh. Booij.** 125 pages. (1957) Elsevier. $5.

The possibilities and limitations of psychosomatic medicine are first considered, followed by a discussion of the psychosomatic aspects of syndrome shift and syndrome suppression. Relationships between anthropology, psychosomatic medicine, and organic pathology are weighed. A chapter on psychotherapy in psychosomatic diseases completes the package. The author is with the Free University, Amsterdam.

Stacey's Medical Books, San Francisco, California.

RECENT ADVANCES IN OBSTETRICS AND GYNAECOLOGY
by **Aleck W. Bourne, F.R.C.S. and Leslie H. Williams, M.D.** 9th ed. 348 pages. Illustrated. (1958) Little, Brown, $8.

This volume, through nine editions, has been bearing fruit for 32 years. The title is specific and there are large servings of fresh material for anyone interested in either subject.

Stacey's Medical Books, San Francisco, California.

HEART DISEASE AND PREGNANCY
by **C. Sidney Burwell, M.D., James Metcalfe, M.D., and Samuel A. Levine.** 338 pages. Illustrated. (1958 Little, Brown. $10.

A thorough and practical description of the differences between the normal and diseased cardiac during the complications of pregnancy is complete, with an extensive bibliography. Recent discoveries in pathologic physiology open the way to modern methods of management.

OBITUARY

JEREMIAH METZGER, M.D.

DR. JEREMIAH METZGER, born Dec. 9, 1877, died May 26, 1958. Such a tombstone epitaph would be sufficient for most of us, but not for Dr. Metzger. "Jerry," as he was affectionately known to many, lived a lot of life between those dates.



DR. JEREMIAH METZGER

Dr. Metzger was of the old school of gentlemen. He was equally at home in the drawing room with his courtly wit and humor as well as in the enjoyment of the more basic aspects of living. The younger men who have not shared in the pleasure of knowing the man, Dr. Metzger, have missed a great deal. His interest in any and everything was boundless — medicine, people, sports — to mention only a few. He was well known in this country from east to west, and not much less known among the older generation of Europeans.

Born in Oak Harbor, Ohio, Dr. Metzger attended Ohio State University, the University of Michigan and graduated from Rush Medical School in 1901. He came to Tucson in 1911 because of his interest in the West and because he had suffered from bouts of osteomyelitis and tuberculosis. He set up offices in the Physicians Building on South Stone Avenue and soon after that, acquired the Witwell Hospital on North First Avenue where he opened Tucson's first private sanatorium for the care and treatment of tuberculous patients. (This institution later became the Methodist Hospital which operated as a general hospital for a number of years.) He was among the first to use pneumothorax in this country, and he made a special trip to Switzerland to learn Rollier's technique in treating extra pulmonary tuberculosis with heliotherapy.

Dr. Metzger joined the Pima County Medical Society shortly after his arrival in 1911. In 1914 he was elected to the office of vice president and served as its president for the year 1915. There were about 30 members in the society in 1915; the meetings were held at the Old Pueblo Club, and the dues were $8 a year.

While carrying on an active practice, Dr. Metzger found time to travel and study, both in this country and abroad. He studied in Berlin, Vienna and Switzerland, acquiring advanced knowledge in medicine, tuberculosis and psychiatry. He was much interested in sports and witnessed many of the Olympic Games starting in 1904, attending his last one after World War II. He retired from activce practice in 1926. Seeing patients took to much time from pursuing his hobbies in medicine and travel.

In 1941, Dr. Metzger took on the job of reorganizing the Arizona State Hospital. This institution, long in ill repute as a "political football," emerged under his direction into the hospital we know as a progressive, up-to-date mental institution. In making these changes, he irritated a lot of people and stepped on a lot of toes, but such was the character of the man. He had a job to do and he did it.

Dr. Metzger belonged to many organizations. He was a member of the Pima County, Arizona, and American Medical Associations; the American Clinical and Climatological Association, and the New York Academy of Medicine. He was a member of the Old Pueblo Club and one of the founding members of the old Country Club.

He entered his second marriage in 1928 to Mrs. Julia Turner, the widow of an army colonel. He and his wife and mother-in-law have lived for many years in a big, comfortable old house on Main Street. He loved having people in for stimulating conversation, good food and drink. It was always a pleasure being invited to his home.

A good, solid citizen has left our midst. He was a pioneer in Arizona medicine, and we are fortunate that he came to this state to live, practice good medicine, and die full of years and memories of deeds well done.

Topics of Current Medical Interest

FEDERAL LEGISLATION RELATED TO THE PRACTICE OF MEDICINE

VA HOSPITALIZATION BILL APPROVED BY VETERAN COMMITTEE

WINDING UP several weeks of hearings on hospitalization, the house veterans' affairs committee on July 30 ordered reported favorably a veterans' administration bill (HR 10028). Coming late in the session, it is not given much chance of passage. However, it could be revived in the next session. Its highlights:

1. Directs VA to operate 125,000 beds for an average daily paticnt load of 113,000. Present figures are 120,526 operating beds and 111,000 daily load.

2. Writes into law, as first proposed in HR 58, the 10-P-10 form which veterans with non-service-connected illness now sign on entering VA hospitals; it gives their financial status. This section also requires reading to the applicant of the crminal code pertaining to false statements under oath.

3. Requires VA to notify the veterans' affairs committee during a session of congress, and at least 90 days in advance, of any plans to shut down a hospital or other VA facility.

4. VA administrator could refuse to furnish hospitalization to non-service-connected veterans who are eligible under workmen's compensation, industrial accident laws or health insurance plans, if other eligible veterans are waiting for care. The restriction would not apply in emergency cases.

5. Authorizes the administrator to furnish outpatient care for nsc cases where necessary to determine if admission to a hospital is required and where essential to complete treatment incident to hospital care.

VA HOSPITAL CARE LIMITATIONS URGED BY AMA AND AHA

American Medical Association and American Hospital Association want congress to spell out who is entitled to veterans' administration hospitalization. The AMA thinks the basic policy should do this: The best possible care for veterans with service-connected disabilities or illnesses in VA installations; non-service-connected illness, if the veteran is unable to pay for his care, to be the responsibility of community governments. The AHA suggests a statutory ceiling of 131,000 beds and the closing of unnecessary facilities.

The two organizations testified July 24 before the house veterans' affairs committee which has been holding extensive hearings on VA hospital policies and practices. The day previously, the committee heard from the American Legion, which maintained that the present policy should be continued, i. e. where beds are available, non-service-connected veterans to get VA care when thy state they can't afford to pay for private care. Said the legion witness: " . . . realism and the uncertainties of the future would demand the preservation of the VA system of hospitals."

Dr. Russell B. Roth, chairman of the AMA committee on federal medical services, said the house group should also authorize a serious study by General Accounting Office and VA of the income level of nsc cases, primarily those in general medicine and surgery hospitals. Also, the law should allow VA to investigate indigency claims made by veterans on the 10-P-10 form which they fill out on admission. Dr. Martin R. Steinberg, chairman of the AHA committee on veterans' relations, also proposed: (1) a new federal category of public assistance for indigent veterans with nsc disabilities, (2) a co-ordinating agency in government for proper planning of VA and other hospitals, federal and non-federal, and (3) health insurance coverage for discharged servicemen, with the U.S. underwriting premiums for limited period of time.

JENKINS-KEOGH PASSES HOUSE, NOW IN SENATE FINANCE COMMITTEE

With scarcely a voice raised in objection, the Jenkins-Keogh bill (HR 10) passed the house on July 29 and was sent to the senate finance committee where its fate is uncertain. The long-sought measure allows self-employed professional or business men to set aside 10 per cent of net earnings each year to a maximum of $2,500, with the tax on that amount deferred until retirement. As many as 7 million persons would benefit. The fight for passage has been spearheaded by the American Thrift Assembly, of which the AMA is a member.

Representative Keogh (D., N.Y.) led the de-

bate for passage. He stressed the bill's voluntary nature and the righting of a tax inequity (employers now may set aside sums in company retirement plans). More than a score of congressmen joined in urging passage; they included Representative Reed (R., N.Y.), ranking minority member of the house ways and means committee and early advocate of a similar bill.

This observation on the bill's merits came from Representative Dennison (R., Ohio): "Self-employed persons generally assume large personal risks. Those in the professions . . . have a tremendous investment in time and money before entering into actual performance of their calling. They must, in their productive years, set aside sufficient funds to take care of themselves in the years when their own human energy and resources have been depleted. It is not unreasonable or unfair to give them the same tax benefit that employed persons enjoy."

Representative Rogers (D., Fla.), pointed out: "Company officials and employes receive benefits from retirement plans which are not counted as income until the money is actually drawn out, and the company counts their contributions to the funds as expenses at the time they pay into the fund."

HEW STUDY OF MEDICAL CARE COSTS FOR AGED, ASKED BY COMMITTEE

The house ways and means committee, which omitted the Forand hospitalization proposal from its social security bill, in its report calls on the secretary of HEW for a study of the various possibilities for financing medical care of the aged. The secretary was instructed to have the study completed by Feb. 1, 1959. The senate finance committee next takes up the social security bill, following house passage.

The ways and means committee told HEW to place special emphasis on the possibility of increasing social security taxes to finance purchase (through private or non-profit organizations) of health insurance which would go into effect upon retirement.

In its instruction to HEW, the committee says it is "very much aware" of the problems in paying hospital and nursing home bills for the aged, and notes that a number of bills had been introduced on the subject, and that some witnesses had emphasized that health insurance is "out of reach" of many older people. Then the committee report comments:

"Your committee believes, however, that more information on the practicability and the costs of providing this kind of protection through various methods should be available before it entertains any recommendation for legislation on the subject. A study of alternative ways of providing insurance against the cost of hospital and nursing home care for old-age, survivors, and disability insurance beneficiaries should be made.

"The alternatives explored include among other proposals: a pre-payment plan under which persons would, during their working years, pay additional social security contributions which would be used to buy this type of insurance (to take effect when the individual becomes an old-age, survivors, and disability insurance beneficiary) from private and non-profit health insurance organizations; other methods of providing insurance against the cost of hospital and nursing home care under Title II; and any other method which offers reasonable prospects for protecting old-age, survivors, and disability insurance beneficiaries against the cost of needed hospital and nursing home care. The study would include, for each of the several alternatives, an evaluation of (1) cost of the benefits and (2) administrative implications.

"Your committee has asked the secretary of health education, and welfare to conduct such a study and to report the results on or before Feb. 1, 1959. With the results of such a study available, the congress will be in a better position to decide what legislative measures, if any, should then be taken to meet the problem."

With release of the report, AFL-CIO President George Meany said in a statement that the social security bill "merits support," even though labor is disappointed that nothing was done with the Forand idea. But, said Mr. Meany, "this cannot be construed as a decision of the congress to discard this proposal . . . It is by no means a dead issue . . . It will be a live issue as long as the problem remains unsolved, and we intend to urge the adoption of the Forand proposal along with other measures further to improve the system, as soon as the 86th congress convenes next January."

Mr. Meany said the AFL-CIO had hoped that the increases in benefits would be at least 10 per cent. He described the 7 per cent favored by the committee as "hardly equivalent to the increase

in living costs since the last benefit improvements four years ago."

HOUSE APPROVES SOCIAL SECURITY AMENDMENTS

The house has approved a series of amendments to the social security act. In addition to raising basic benefits 7 per cent and increasing the tax rate and tax base, the bill would give the states greater flexibility in use of federal funds for financing the medical care of the aged, the blind, the disabled and dependent children. There would be no distinction between recipient payments and vendor payments.

Under the bill (HR 13549), the state would receive a portion of $66 multiplied by the number of adult assistance recipients, and from this pool, the state could meet all payments, subsistence and medical. The present law has worked a hardship on some states; those states that have been pooling medical care payments on the first $60 faced a loss of federal money or a drastic change in their own laws and procedure.

On this issue, the house ways and means committee states: "The separate matching of payments to doctors, hospitals and other suppliers of medical care would be eliminated with the new maximum of $66 per individual per month covering both the present maximum of $60 on an individual payment and the $6 average now provided for payments for medical care of public asisstance recipients. Both this provision and the average limitation on money payments will provide greater flexibility to the states in the operation of their programs, and will also eliminate the special problems existing in some states arising out of existing law."

The new bill also authorizes an additional $288 million for the states under revised formulas for public assistance, which payments come from general tax funds. As at present, the federal government would provide 80 per cent of the first $30 on an average to the aged, blind and disabled recipients. The bill would provide from 50 per cent to 70 per cent matching on amounts in excess of $30 to the new maximum of $66 on an average basis, depending on the state's per capita income. The poorer states would receive the higher percentage. The higher average maximum will give the states the added funds.

Additionally, U.S. funds for maternal and child health would be increased from $16.5 million to $21.5 million, for crippled children services from $15 million to $20 million and for child welfare services from $12 million to $17 million.

RESEARCH-TEACHING GRANTS BILL TIGHTENED

In reporting out a bill to extend the program of construction grants for medical research facilities, the house commerce committee tightened up a provision that would make the money available also for medical school teaching facilities. The original wording would have allowed grants to multi-purpose facilities (research and teaching) if their "principal contemplated use will substantially further research in the sciences . . . " The committee changed this to read "if their principal use will be for research. . . ." Thus, because their "principal use" would not be "for" research, grants could not be used to construct and equip dining halls, dormitories, etc., at medical schools, although the grants could be used for buildings and equipment that combine research and teaching.

Under the law, $30 million a year is authorized for research, and the proposed amendment does not increase this total. However, if the bill reaches the senate, there is the possibility it may be amended to raise the authorization, in view of the eligibility of teaching facilities for grants. Then, before much money would be available for teaching plants, a separate appropriation bill would have to be passed.

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LEGISLATIVE BOXSCORE, 85TH CONGRESS, SECOND SESSION

Subject	*Bill No.*	*House*	*Senate*
Public works loans	S. 3497	Debate under way	Passed April 16
Civilian pay (VA doctors)	S. 734	Public Law 85-462, June 20	
Military pay	HR 11470	Public Law 85-422, May 20	
Public health school grants	HR 11414	Public Law 85-544, July 22	
HEW appropriations	HR 11645 S. 2888	Passed March 27	Passed June 20
Union health plans	HR 13507	Reported July 28	Passed April 28
Social security	HR 13549* HR 6874	Passed July 31	
Medical school aid	S. 1917	Hearings held	In committee
Research facilities	HR 12876 HR 13254	Reported July 29	
Chemical additives	S. 4193	Reported July 28	In committee
Aging conference	HR 9822 HR 10	Passed July 29	
Jenkins-Keogh taxes	S. 3194	Passed July 28	In committee
Hill-Burton extension	HR 12628		
Hill-Burton loans	HR 12694 S. 1045	Passed June 26	Passed July 21
Civil aviation medicine	HR 4275	In Committee	Hearings held
Civil defense aid	HR 7576	Passed July 15, 57	Passed July 23
Defense reorganization	HR 12541	Passed June 12	Passed July 18
Medicare appropriations	HR 12738	Passed June 5	Passed July 30
Nursing home loans	S. 4035	Subcommittee OK	Passed July 11
Presumption of service connection	HR 413 HR 1143	Passed July 7 Passed July 21	
VA hospitalization	HR 10028	Reported July 30	

No Action:

*Medical care for aged (Forand's HR 9467); grants and scholarships for nursing (HR 306); national compulsory health insurance (HR 3764); health insurance pooling (HR 6506 and HR 6507); rehabilitation (HR 10608 and S. 3551).

SENATE LIFTS MEDICARE RESTRICTIONS; ISSUE NOW IN CONFERENCE

The senate, at the request of Senator Knowland (R., Calif.), amended the defense department appropriations bill to eliminate house-imposed restrictions that threatened to wreck the civilian phase of the Medicare program. The Knowland amendments carried by voice vote at a time when the chamber was crowded in preparation for passage of the big defense bill, but only two or three "nays" were heard. The issue now is in the hands of the senate-house conference committee, where a decision is expected shortly.

Under the house restrictions, a $60 million spending ceiling would be placed on Medicare, although the year's actual cost is estimated at closer to $100 million, and the defense department would be forbidden to shift other funds to the Medicare column, or to ask deficiency appropriations. Because of holdover bills and other obligations, only about $40 million actually would be available, meaning a 60 per cent cutback in civilian Medicare.

The Knowland amendments restored the total to the original request, $70.2 million, and also deleted the section that prevented shifting of funds or requests for additional money. During debate, Senator Knowland observed: "If the congress wishes to change the Medicare program, let us do it in an orderly, gradual way. Let us not act to damage the good will built up among service families by this laudable program."

Senator Chavez (D., N.M.), chairman of the senate appropriations subcommittee that supported the limitations, said he would accept the Knowland amendments because the defense department intends to channel more dependents

to military hospitals by: 1. Instructing dependents residing on posts or in nearby government-sponsored housing to use military facilities. 2. Eliminating certain types of care now authorized in civilian hospitals. 3. Possibly increasing charges to dependents for civilian care.

Prior to the senate vote on the Knowland amendments, a personal letter was sent to every senator by Dr. William J. Kennard, acting director of the Washington office of AMA. It listed the consequences of a drastic cutback in civilian Medicare, outlined the issues involved, and cited a defense department study showing that there is no basis for the conclusion that military medical care is less expensive than civilian. At senate and house hearings, military witnesses had claimed that military hospitals were caring for dependents at a substantially lower cost than were civilian hospitals.

Legislative notes: The house has approved a resolution (HR 9822) by Representative Fogarty (D., R.I.), requesting the President to call a White House conference on the problems of the aging by September 1960, and to make grants of up to $50,000 to each state to help finance similar state conferences prior to the Washington meeting . . . Mrs. E. H. Hedrick of Beckley, W. Va., active in medical auxiliary work and widow of a physician who served in the house for eight years, is a candidate for the Democratic nomination to congress to fill the same seat . . . The senate approved placing in Statuary Hall of the Capitol a statue of the late Dr. Florence Rena Sabin, noted for her research in the lymphatic system and tuberculosis. If approved by the house, it will be Colorado's first statue in the collection; each state is entitled to two.

COMMITTEE VOTES BOOST IN SOCIAL SECURITY

Winding up its many weeks of open hearings and executive sessions on social security, the house ways and means committee voted increases in benefits and taxes, but took no action on the Forand plan for hospitalization under social security, which had been a controversial aspect of the hearings. The provisions, still not publicly announced, are understood to be as follows:

Benefits. An increase of 7 per cent in monthly social security benefits, with a minimum increase of $3. *Tax Increases.* The first $4,800 of employment income to be subject to the social security taxes, instead of the present $4,200. In addition, the tax rate to be increased in 1959 one quarter of 1 per cent each for employer and employe from the present 2 1/4 to 2 1/2 per cent and the self-employment tax to 3 3/4 per cent from the present 3 3/8 per cent. Also, the schedule of future rate increases was accelerated to the following: 1960 — Employer and employe, 3 per cent, self-employed, 4 1/2 per cent. 1963 — Employer and employe, 3 1/2 per cent, self-employed, 5 1/4 per cent. 1966 — Employer and employe, 4 per cent, self-employed, 6 per cent. 1969 — Employer and employe, 4 1/2 per cent, self-employed, 6 3/4 per cent.

The committee also is expected to recommend increases approximating 7 per cent for the U.S. contribution to public assistance.

APPROPRIATIONS — NATIONAL CANCER INSTITUTE

The house and senate have passed the 1959 appropriation bill. Total appropriations for the National Institutes of Health are $294,383,000, an increase of about $83 million over the 1958 figure of $211 million.

The 1959 figure for the National Cancer Institute is $75,268,000, an increase of nearly $20 million on the 1958 figure of $55,923,000.

Indirect cost allowance was kept at 15 per cent.

It is interesting that this action increasing appropriations should have followed so closely the release on July 14 of the report of the consultants, chairmanned by Dr. Stanhope Bayne-Jones on the medical research needs of the country. This group of special consultants included Dr. Lowell T. Coggeshall and was appointed last August by Mr. Folsom, secretary of health, education and welfare to take stock of the nation's medical training and research effort.

The report urges that medical research outlays be tripled to about $1 billion per year by 1970.

CONFEREES VOTE RECORD $294 MILLION FOR INSTITUTES OF HEALTH

Senate-house conferees July 17 agreed on a budget for the department of health, education, and welfare, including record high appropriations for the Institutes of Health. Approval is expected without change. Here are the major provisions: A total of $294 million for the Institutes, or 75 per cent more than the house had proposed; $186 million for the Hill-Burton hospital

construction program in contrast to $121 million proposed by the house (diagnostic-treatment centers and chronic disease hospitals were cut from the senate's $20 million to $7.5 million each, but senate figures were accepted for rehabilitation centers and nursing homes, $10 million each); $6.9 million to build a national library of medicine and $9.6 million to build an office building at NIH. Rounded-off figures approved for the various institutes (in millions of dollars) are: General research, $29, cancer, $75, mental health, $52, heart disease, $45.6, dental research, $7.4, arthritis, $31, allergy, and infectious diseases, $24, and neurology and blindness, $29.

AMA RENEWS EFFORTS FOR NURSING HOME MORTGAGE GUARANTEES

The American Medical Association has renewed its efforts to convince congress that proprietary nursing homes should have the benefit of federal mortgage guarantees. Dr. R. B. Robins, who earlier testified before a senate subcommittee, has asked the housing subcommittee of the house banking and currency committee to act favorably on legislation that already has passed the senate.

Dr. Robins pointed out that financing the medical care of the aged was a serious problem, and that one of the answers was the construction of high quality nursing homes where the aged could receive necessary medical care, yet avoid high costs of hospitalization. He reviewed work done by the AMA over the years to improve the medical care of the aged, and explained how the association was participating in the activities of the joint council to improve the health care of the aged. Other members are the American Hospital Association, the American Dental Association, and the American Nursing Home Association.

Earlier, Dr. T. Stewart Hamilton testified that the American Hospital Association approved the idea of U.S. mortgages for proprietary nursing homes, but he raised a number of objections to the senate bill. For one thing, he said such guarantees should be allowed only if the application has been certified by the PHS surgeon general as "in conformity with" the state's requirements for the Hill-Burton hospital construction program. This would mean that guarantees would be granted only after a survey had shown that the community needed the home.

Testifying for the American Nursing Home Association, George T. Mustin explained that the homes handle about 70 per cent of all elderly patients, that they are handicapped in obtaining ordinary mortgages because they are "one-purpose" structures, that they are a community asset because they provide a place where the elderly patient can receive the necessary medical care without paying the high charges hospitals are forced to make. Replying to the suggestion that guarantees be predicated on a survey, he said Hill-Burton type surveys give an unrealistic picture of the number of nursing homes, and that besides, a need would have to exist or the sponsors and private lending agency would not risk money in the venture.

CONSULTANTS PROPOSE $1 BILLION A YEAR FOR MEDICAL RESEARCH

The nation should treble its expenditures for medical research and double its output of physicians in the next 12 years, in the opinion of an advisory committee that has just made its report to Secretary Folsom. Chairman of the group was Dr. Stanhope Bayne-Jones, former Yale medical dean and former head of the joint administrative board of New York Hospital-Cornell Medical Center. Other members were medical educators and research directors in private industry.

The report proposes that the U.S. supply about half the research funds, or half a billion dollars by 1970, with the rest coming from industry and private philanthropy. U.S. now pays about 56 per cent of medical research costs. Between 14 and 20 new medical schools should be built, partly to supply needed researchers, and some of them should be started immediately. The consultants believe dangers of federal control of research can be avoided through vigilant and sustained application of safeguards.

SUPREME COURT RULES AGAINST FTC ON INSURANCE

The Federal Trade Commission has lost ground in its campaign against accident and health insurance advertising. The supreme court in a unanimous decision held that FTC has no jurisdiction over such advertising in states that have their own laws on the subject—even though such laws are not being enforced. Cases on the subject had been appealed by the American Life Convention, the Life Insurance Association of America, and the Health Insurance Association of America. The law authorizes federal regula-

The Achievements of Arist

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]...6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

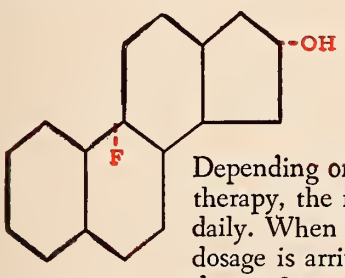
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2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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Triamcinolone LEDERLE

...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.[8,9]... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.[10,11,12]... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.[13]



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

tion in this area only where states have not entered the field. FTC argued that in this instance the states with regulatory laws were not applying them. The court pointed out that the states in question have prohibitory legislation and that failure on their part to enforce it was not sufficient ground to use federal law.

EYE FOUNDATION AND AMA DISAGREE WITH OPTOMETRISTS

The National Foundation for Eye Care and the American Medical Association are opposing a proposal of the American Optometric Association to authorize optometrists to make examinations for blindness in all government programs. Following testimony by the optometrists to the house ways and means committee, both professional groups sent letters to Chairman Wilbur Mills. The foundation repeated the argument that every time a person is declared blind by an optometrist alone, a chance is lost to determine the true medical cause of the blindness and to appraise chances of rehabilitation or cure.

The issue came before the ways and means committee because it now is considering changes in the social security law, which authorizes optometrists to determine blindness in public assistance cases. AMA also urged that for the protection of patients this authorization be dropped.

STATE UNIVERSITIES OPPOSE NUCLEAR INSURANCE

Twenty-three universities in 18 states are backing legislation to exempt them from buying liability insurance for nuclear reactors. A joint atomic energy subcommittee held hearings July 9 on several bills introduced to ease the Atomic Energy Commission requirements for state schools. In some cases, witnesses said, changes in state constitutions to allow schools to get such insurance would take two or three years. Major bill on the subject is HR 13190 by Representative Melvin Price (D., Ill.). State medical schools would be involved in some states. An AEC official testified that as yet it had no policy on the bill, which is still before the budget bureau.

PHS TO RELEASE MORE INFORMATION ON SMOKING-CANCER ISSUE

Releasing a report showing a high correlation between heavy smoking and high death rates among 200,000 veterans, public health service indicated that from now on it will issue more information on the controversial subject. In line with the policy, PHS supplied copies of the complete report to all state and territorial health officers as well as to the press. The report, which does not include clinical or laboratory research, was prepared with the co-operation of the veterans' administration, but that agency did not participate in its drafting nor does it sponsor the report. Some of the findings:

1. When adjustments are made for age distribution, the death rate is 32 per cent higher among smokers than non-smokers; deaths varied with the amount smoked, but only in cases where large amounts of tobacco were consumed were rates for cigar and pipe smokers significantly higher than for non-smokers.

2. Cigaret smokers had the highest death rate among tobacco users — 58 per cent higher than among non-smokers; the lung cancer rate for "cigaret only" smokers was 10 times that for non-smokers.

3. For regular cigaret-only smokers, the death rate from coronary heart disease was 63 per cent higher than for non-smokers.

CIVIL DEFENSE EXPANSION BILL GETS SENATE GROUP APPROVAL

The civil defense expansion bill that has been hanging fire for a year (it was passed last July by the house) has received a favorable report from the senate armed services committee. It provides funds to help the states in their civil defense planning and training. The senate committee set specific ceilings on various programs and limited funds to a five-year period. Some examples: No more than $25 million a year in grants for civil defense personnel and administrative expenses, and $35 million for radiological instruments.

Leo A. Hoegh, director of the Office of Defense and Civilian Mobilization, told the committee that passage of the bill would "do much to convince the public that the federal government means business . . . and is serious about civil defense." He said the most significant provision in the bill is for federal grants up to 50 per cent of state and local personnel and administrative expenses. By and large, he said, state and local governments on their own have not been able to establish and support proper staffs.

Groups backing the legislation (HR 7576) include the American Municipal Association, the American Legion, the AFL-CIO, National Association of County Officials.

DR. HALDEMAN HEADS HILL-BURTON PROGRAM

The man who will direct the government's multi-million dollar Hill-Burton hospital construction program is Dr. Jack C. Haldeman, who helped organize the program more than 12 years ago. He has been serving as depnty chief of the public health service division of hospital and medical facilities. When Hill - Burton was launched in 1946, Dr. Haldeman was executive officer and had an important part in developing regulations and operating procedures and organizing the field staff. Dr. Haldeman succeeds Dr. Vane M. Hoge, who has been appointed executive director of the Hospital Planning Council of Chicago.

INCOME TAX GUIDE*

PERSONAL EXEMPTIONS AND DEPENDENTS

Personal Exemptions — A taxpayer is allowed an exemption of $600 for himself. In addition, citizens and residents of the United States who are 65 or over by the end of the taxable year, qualify for another $600 exemption. For tax purposes, a taxpayer is considered to be 65 on the day before his 65th birthday. Still another exemption of $600 is allowed for blindness, based on the condition on the last day of the taxable year. If a joint return is filed, in addition to his own exemption or exemptions, a taxpayer may claim a personal exemption of $600 for his wife, an additional exemption of $600 if she attained the age of 65 by the end of the taxable year, and a third exemption of $600 if she was blind at the end of the taxable year.

Dependents—An exemption of $600 is allowed for each person who is dependent upon the taxpayer, if the following five tests are met:

TEST 1 — GROSS INCOME

Generally, a person may not be claimed as a dependent if he has received gross income of $600 or more for the year. This gross income test does not apply in the case of a child, stepchild, or legally adopted child who is under age 19 or who is a full time student at an educational institution with a regular faculty.

Example: Gordon, a medical student, earned $1,200 during the year, all of which was spent for his support. His father contributed $1,300 toward his support. His father may claim him as a dependent, even though Gordon had over $600 gross income, if the other tests are met.

*Prepared by the law department, AMA.

TEST 2 — SUPPORT

During the taxable year, the taxpayer must have contributed more than half of the support of the dependent, except in a case where there is a "multiple support agreement" (explained later). Support includes amounts expended for board, lodging, clothing, cost of education, medical and dental care, cost of entertainment, and cost of travel and transportation. It does not include amounts spent to purchase capital items (other than clothing).

Scholarships: Amounts received as scholarships for study in an educational institution by a child, stepchild, or legally adopted child who is a student, should not be taken into account in determining the total cost of his support. However, amounts received by veterans for tuition payments and allowances while attending school and appointments to the United States Military Academy or other service academies are not considered scholarships.

Example: During 1957, Dr. Hall's son John, over 19, attended college. He received $990 from the government, under the GI Bill, to assist him in his education. During the summer he worked and earned $750. Dr. Hall contributed $1,500 toward John's support. The fact that the $990 received from the government for his education is not included in John's gross income does not prevent such amount from being included in the computation of the total amount expended for his support. If the entire $990 was expended for John's support, Dr. Hall may not claim him as a dependent since he did not contribute more than one-half of John's support. However, suppose John spent $1,000 for an automobile. Since this amount is not considered as having been spent for his support, Dr. Hall would have met the support test, and if the other tests are met, he may claim John as a dependent.

Multiple Support Agreement: An exception to the support test is made if no one person contributes more than half the support of an individual, but over half of the support of the individual is contributed by two or more persons each of whom, but for the support test, would be entitled to claim the individual as a dependent. In this situation any one (but only one) of the persons who furnished over 10 per cent of the support may claim an exemption for the dependent individual. Each person contributing to the support, except the person claiming the exemp-

tion, must file a written statement that he will not claim the individual as a dependent for that year. The statements should be filed with the return of the person who does claim the exemption. Copies of Form 2120 may be obtained for this purpose from any district director of internal revenue.

TEST 3 – MEMBER OF HOUSEHOLD

If the claimed dependent is a member of the taxpayer's household and lives with him for the entire year, it is not necessary that he be related to the taxpayer in any way in order that he may be claimed as an exemption. An example is where a friend comes to live with the taxpayer in his home. Temporary absences of the dependent form the taxpayer's home for reasons such as vacation, school, or sickness will not disqualify him as an exemption if the other tests are met.

A dependent, related in any one of the following ways, is not required to be a member of the taxpayer's household or to live with the taxpayer: (1) a son or daughter of the taxpayer, or a descendant of either; (2) a stepson or stepdaughter of the taxpayer; (3) a brother, sister, stepbrother, or stepsister of the taxpayer; (4) the father or mother of the taxpayer, or an ancestor of either; (5) a stepfather or stepmother of the taxpayer; (6) a son or daughter of a brother or sister of the taxpayer; (7) a son-in-law, daughter-in-law, father-in-law, mother-in-law, brother-in-law, or sister-in-law of the taxpayer. Ordinarily, an exemption for a cousin will not be allowed unless the cousin lives with the taxpayer as a member of his household. However, if for the taxable year the cousin receives institutional care required as a result of a physical or mental disability, he may be claimed as a dependent if he meets all the other tests and was a member of the taxpayer's household before reeciving the institutional care.

TEST 4 – CITIZENSHIP OR RESIDENCE

The dependent must be a citizen or a resident of the United States, or a resident of Canada, Mexico, the Canal Zone, or the Republic of Panama.

TEST 5 – JOINT RETURN

The dependent may not file a joint return with another person. To illustrate, suppose the taxpayer supported his daughter for the entire taxable year while her husband was in the armed forces. If the daughter and her husband prepare and file a joint return, the taxpayer may not claim his daughter as a dependent, even though all the other tests are met. Further, if the husband fies a separate return and claims an exemption for the taxpayer's daughter, her father may not claim her as a dependent.

Dependent's Return: The dependent may claim the $600 personal exemption on his own return, even though he has been claimed as a dependent. To illustrate, a medical student earned $850 during the year. Since he had gross income of more than $600, he must file a return in which he may claim a deduction of $600. If his father furnished more than one-half of his support for the year and the other tests are met, his father is also allowed an exemption of $600 for him as a dependent.

(To be continued)

MARICOPA COUNTY MEDICAL SOCIETY LIBRARY

2025 North Central Avenue
Phoenix, Arizona

MEDICAL JOURNAL HOLDINGS AS OF JULY 1, 1958

A listing of the medical literature available in the various libraries of the state will be published at intervals.

American Heart Journal
Vol. 1 (1926) to date

American Journal of Cardiology
Vol. 15 (1931) to Vol. 40 (1940)

American Journal of Clinical Nutrition
Vol. 1 (1952) to date

American Journal of Clinical Pathology
Vol. 1 (1931) to date

American Journal of Digestive Diseases
Vol. 1 (1934) to date

American Journal of the Diseases of Children
Vol. 1 (1911) to date

American Journal of Gastroenterology
Vol. 21 (1954) to date

American Journal of the Medical Sciences
Vol. 1 (1821) to Vol. 61 incomplete
Vol. 61 (1871) to date

American Journal of Medical Technology
Vol. 15 (1949) to Vol. 23 (1957)

American Journal of Medicine
Vol. 1 (1946) to date

American Journal of Obstetrics and Gynecology
Vol. 1 (1921) to date

American Journal of Ophthalmology
Vol. 1 (1918) to date
American Journal of Pathology
Vol. 1 (1925) to date
American Journal of Physiology
Vol. 145 (1945) to date
American Journal of Proctology
Vol. 1 (1950) to date
American Journal of Psychiatry
Vol. 26-28 (1869-1872) American Journal of Insanity
Vol. 5 (1926) to date
American Journal of Public Health
Vol. 1 (1911) to date
American Journal of Roentgenology, Radium Therapy, and Nuclear Medicine
Vol. 1 (1913) to date
American Journal of Surgery
Vol. 1 (1926) to date
American Journal of Syphilis, Gonorrhea and Venereal Diseases
Vol. 1 (1917) to Vol. 40 (1940)
Publisher ceased publication
American Journal of Tropical Medicine and Hygiene
Vol. 15 (1935) to date
American Practitioner
Vol. 1 (1947) to date
American Review of Tuberculosis & Pulmonary Diseases
Vol. 1 (1917) to date
American Surgeon
Vol. 18 (1952) to Vol. 22
Anesthesia & Analgesia (Current Researches In—)
Vol. 1 (1922) to date
Anesthesiology
Vol. 1 (1940) to date
Angiology
Vol. 1 (1950) to date
Annals of Allergy
Vol. 5 (1947) to date
Annals of Clinical Medicine
Vol. 1 (1923) to Vol. 5
Annals of Internal Medicine
Vol. 1 (1928) to date
Annals of Otology, Rhinology & Laryngology
Vol. 29 (1920) to date
Annals New York Academy of Science
Incomplete
Annals of Rheumatic Diseases
Vol. 6 (1949) to date
Annals of Surgery
Vol. 9 (1889) to date
Archives of Dermatology & Syphilology
Vol. 7 (1923) to date
Archives of Industrial Health
Vol. 1 (1950) to date
Archives of Internal Medicine
Vol. 3 (1909) to date
Archives of Neurology & Phychiatry
Vol. 1 (1919) to date
Archives of Ophthamology
Vol. 43 (1914) to Vol. 57 incomplete
Vol. 1 (1929) to date
Archives of Otolaryngology
Vol. 1 (1925) to date
Archives of Pathology
Vol. 1 (1926) to date
Archives of Physical Therapy
Archives of Physical Medicine
Vol. 7 (1926) to date
Archives of Surgery
Vol. 1 (1920) to date
Arizona Pharmacist
1956 to 1957
Bacteriological Reviews
Vol. 1 (1937) to date
Balyeat Hay Fever & Asthma Clinic Proceedings
Incomplete
Ceased publication
Biophysics
Vol. 1 (1956) to Vol. 2 (1957)
Brain: A Journal of Neurology
Vol. 60 (1937) to date
British Journal of Anesthesia
Vol. 30 (1958)
British Journal of Dermatology
Vol. 58 (1946) to date
British Journal of Ophthalmology
Vol. 1 (1917) to date
British Journal of Radiology
Vols. 21-23 (1925-1927)
Vol. 1 (1928) to date
British Journal of Surgery
Vol. 31 (1944) to date
British Medical Journal
Vol. 1 (1937) to date
Bulletin of the American College of Surgeons
Vol. 35 (1950) to date
Bulletin of History of Medicine
Vol. 28 (1954) to date
Bulletin of the Johns Hopkins Hospital
Vol. 10 (1899) to date

Bulletin of the Medical Library Association
Vol. 42 (1954) to date
Bulletin of the Menninger Clinic
Vols. 11-19 (1947-1955)
Bulletin of the New York Academy of Medicine
Vol. 4 (1928) to date
Bulletin on Rheumatic Diseases
1951 to 1956 incomplete
Canadian Medical Association Journal
Vol. 18 (1928) to date
Canadian Services Medical Journal
Vol. 11 (1955) to Vol. 13
Cancer
Vol. 1 (1948) to date
Chemical Abstracts
Vols. 32, 34 (1938-1940) incomplete
Vols. 43-45 (1949-1951) incomplete
Circulation
Vol. 1 (1950) to date
Cleveland Clinic Quarterly
Vol. 1 (1934) to date
Clinical Medicine
Vol. 3 (1956) to date
Diabetes
Vol. 3 (1954) to date
Diseases of the Chest
Vol. 1 (1935) to date
Diseases of the Nervous System
Vol. 9 (1948) to date
Electroencephalography & Clinical Neurophysiology
Vol. 5 (1953) to date
Endocrinilogy
Vol. 1 (1917) to date
Federation Proceedings
Vol. 8 (1949) to Vol. 16
Gastroenterology
Vol. 1 (1943) to date
General Practice
Vol. 1 (1950) to date
German Medical Monthly
Vol. 1 (1956) to date
Geriatrics
Vol. 1 (1946) to date
Guy's Hospital Reports
Vol. 95 (1946) to date
Hospital Management
Vol. 75 (1953) to Vol. 81
Industrial Medicine & Surgery
Vol. 1 (1932) to Vol. 26 (1957)
American Association Industrial Nurses Journal
Vol. 4 (1956) to Vol. 5
International Abstracts of Surgery
Vol. 18 (1914) to Vol. 104 (1957)
International Record of Medicine & General Practice Clinics
Vol. 16 (1951) to Vol. 170 (1957)
Journal of Allergy
Vol. 1 (1929) to date
Journal of the American Dental Association
Vol. 16 (1929) to date
Journal of American Dietetic Association
Vol. 23 (1947) to Vol. 32
Journal of American Geriatrics Society
Vol. 4 (1956) to date
Journal of the American Medical Ass'n.
Vol. 41 (1903) to date
Journal of the American Medical Women's Association
Vol. 1 (1946) to date
Journal of Applied Psychology
Vol. 32 (1948)
Journal of Aviation Medicine
Vol. 19 (1948) to Vol. 27
Journal of Bacteriology
Vol. 8 (1923) to date
Journal of Biological Chemistry
Vol. 71 (1926-1927)
Vol. 167 (1947) to Vol. 224 (1957)
Journal of Bone & Joint Surgery
Vol. 6 (1924) to date
Journal of Chronic Diseases
Vol. 1 (1958) to date
Journal of Clinical Endocrinology & Metabolism
Vol. 6 (1946) to date
Journal of Clinical Investigation
Vol. 1-11 (1924-1932)
Vol. 12-20 incomplete
Vol. 25 (1946) to date
Journal of Hematology
Vol. 1 (1946) to date
Journal of Infectious Diseases
Vol. 24 (1919) to date
Journal of the International College of Surgeons
Vol. 1 (1938) to date
Journal of Investigative Dermatology
Vol. 1 (1938) to date
Journal of Laboratory & Clinical Medicine
Vol. 6 (1920) to date
Journal* Lancet
Vol. 43 (1923) to date
Journal of the Mt. Sinai Hospital
Vol. 1 (1934) to date

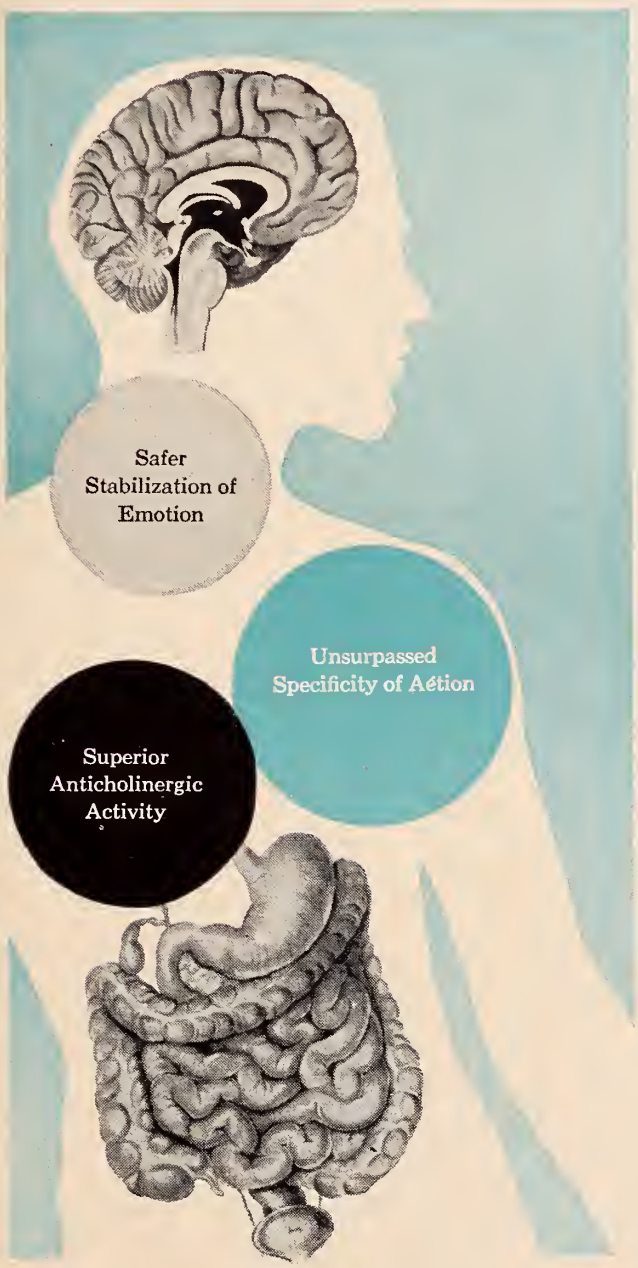
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Specific Clinical Applications: Functional gastrointestinal disturbances, gastritis, pylorospasm, peptic ulcer, spastic colon (irritable bowel), biliary dyskinesia.

Dosage: One tablet three times a day.

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Research in the Service of Medicine.

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Journal of Medical Education
Vol. 20 (1945) to date
Journal of Nervous & Mental Diseases
Vol. 125 (1957) to date
Journal of Neuropathology & Experimental Neurology
Vol. 10 (1951) to date
Journal of Neurosurgery
Vol. 7 (1950) to date
Journal of Pediatrics
Vol. 4 (1934) to date
Journal of Pharmacology & Experimental Therapeutics
Vol. 95 (1949) to date
Southern Medicine & Surgery
Southern General Practitioner
Vol. 86 (1924) to Vol. 115 (1954)
Journal of the Student* American Medical Association
The New Physician
Vol. 1 (1952) to date
Journal of Thoracic Surgery
Vol. 1 (1932) to date
Journal of Urology
Vol. 4 (1920) to date
Lancet
1937 – to date
Laryngoscope
Vol. 32 (1922) – to date
Medical Abstracts
Vol. 1 (1955-1956)
Medical Arts & Sciences
Vol. 5 (1951) to Vol. 11 (1957)
Medical Clinics of North America
Vol. 1 (1917) to date
Medical Economics
Vol. 29 (1952) to date
Medical Journal of Australia
1956 to date
Medical Times
Vol. 83 (1955) to date
Medicine
Vols. 3-5 (1924)-1926)
Vols. 7 and 9 (1928, 1930)
Vol. 18 (1939) to date
Metabolism
Vol. 1 (1952)
Vol. 5 (1956) to date
Military Surgeon
Military Medicine
Vol. 38 (1916) to date
Modern Hospital
Vol. 79 (1952) to Vol. 86 (1956) incomplete
Modern Medicine
Vol. 16 (1948) to date
Naval Medical Bulletin
Vol. 18 (1923) to Vol. 49 (1949)
Ceased publication
Neurology
Vol. 5 (1955) to date
New England Journal of Medicine
Vol. 190 (1924) to date
Nuclear Science Abstracts
Vol. 1 (1948) to date
Obstetrics & Gynecology
Vol. 1 (1953) to date
Occupational Medicine
Vol. 1 (1946) to Vol. 5 (1958)
Ceased publication
Oral Surgery, Oral Medicine, & Oral Pathology
Vols. 6, 7 (1953-1954)
Pediatrics
Vol. 1 (1948) to date
Pediatric Clinics of North America
1956, 1957
Physiological Reviews
Vol. 30 (1950) to date
Plastic & Reconstructive Surgery
Vol. 1 (1949) to Vol. 19 (1957)
Postgraduate Medicine
Vol. 3 (1948) to date
Proceedings of Royal Society of Medicine
Vol. 46 (1953)
Vol. 51 (1958)
Proceedings of the Society for Experimental Biology & Medicine
Vol. 30 (1932) to date
Proceedings of the Staff Meetings of the Mayo Clinic
Vol. 1 (1926) to date
Proctology
Vol. 15 (1950) to Vol. 18
Psychosomatic Medicine
Vol. 9 (1947) through Vol. 19 (1957)
Public Health Reports
Vol. 48 (1933) to date
Quarterly Bulletin of Northwestern University Medical School
Vol. 14 (1940) through Vol. 28(1954)
Quarterly Bulletin of Sea View Hospital
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ARIZONA POISONING CONTROL INFORMATION CENTER

Progress Report From The Arizona Poisoning Control Information Center At The University Of Arizona College of Pharmacy

TOXICITY STUDIES OF ARIZONA ORNAMENTAL PLANTS

AS STATED in the June 1, 1958 report, the Pharmacology Division of the University of Arizona College of Pharmacy in co-operation with the Arizona Pooisoning Control Information Center has becn carrying out toxicological studies with ornamental plants growing around homes in Arizona. This report will consider the *Pyracantha* shrub.

Pyracantha cocinea, Fam. *Rosaceae*: The ingestion of the bright red, berry-like fruit of the *Pyracantha* shrub has resulted in numerous inquiries at the Arizona Poisoning Control Information Center. It is estimated that during the 1957-58 fruit-bearing season of this shrub (November to March) an average of eight inquiries per week seeking information as to the potential toxicity of the *Pyracantha* berrics were received from parents at the information center. The major portion of the incidents involved small children who obtained the fruit directly from the shrub.

Sub-acute toxicity studies were carried out by the pharmacology division with four species of animals, namely — three dogs, two rabbits, six white rats, and six guinea pigs. These animals were fed *Pyracantha* berries *ad libitum* for a period of 10 days. It was found that all consumed the berries readily with no need for forced feedings. For example, each dog ingested at least 300 Gms. of the berries each day. Frequently, a dog would eat this quantity within one hour. The average daily diet of the berries for a white rat was 75 Gms. (One adult handful of berries weighs approximately 20 Gms.) A total of 13.7 Kg. (30 pounds) of *Pyracantha* berries were fed to these animals during the test period. The result of these tests revealed that no animal displayed ill effects from the ingestion of the large amounts of the berries.

From these experimental animal studies, it appears that *Pyracantha* berries are not harmful, especially in the relatively small amounts which might be consumed by children. However, the toxic potential of garden sprays used to combat red spiders on *Pyracantha* shrubs must not be overlooked when parents are given toxicity information concerning the fruit of this shrub. Lindane, Malathion and DDT are common constituents of these insecticide sprays. If a child should ingest the berries from a *Pyracantha* shrub that has been recently sprayed, treatment should be directed to the insecticide with less concern over the *Pyracantha* berrics.

Bemegride Available as a Barbiturate Antagonist

Bemegride (beta-ethyl-beta-methylglutarimide) is now commercially available under the trade-name Megimide from Abbott Laboratories. The drug is a central stimulant and has been found useful for counteracting the central nervous system depression associated with barbiturate intoxication. It has been demonstrated to have an analeptic action similar to that of picro-

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toxin and Metrazol. However, Megimide is said to have a wider margin of safety, since it produces its effects at a dosage appreciably below that which results in convulsions. This antidote is usually administered IV in intermittent doses of 50 mg. every three to five minutes until the return of muscle tone, and pharyngeal and laryngeal reflexes.

Megimide is supplied in sterile 10 cc. vials, each containing 50 mg. dissolved in 10 cc. of isotonic saline. It is recommended that each of the 18 Arizona Hospital Poisoning Control Treatment Centers stock this antidote.

Statistics of 70 Poisoning Cases in Arizona Reported Since the June 1 1958, Progress Report

	Per Cent	*Number*
AGE:		
Under 5	61.4	(43)
6 to 15	2.9	(2)
16 to 30	20.0	(14)
31 to 45	8.6	(6)
Over 45	7.1	(5)
NATURE OF INCIDENT:		
Accidental	80.0	(56)
Intentional	20.0	(14)
OUTCOME:		
Recovery	100.0	(70)
Fatal	0.0	(0)
TIME OF DAY:		
Between 6 a.m. & noon	28.6	(20)
noon & 6 p.m.	25.7	(18)
6 p.m. & midnight	34.3	(24)
midnight & 6 a.m.	1.4	(1)
Not reported	10.0	(7)
CAUSATIVE AGENTS:		
Aspirin preparations	20.0	(14)
Sedatives (barbiturates & glutethimide-Doriden)	14.3	(10)
Solvents (gasoline, kerosene, turpentine, carbon tetrachloride)	24.3	(17)
Insecticides (chlordane, malathion, DDT, Real Kill Fly Spray)	10.0	(7)
Household bleaches, detergents (Chlorox, Spic and Span)	5.7	(4)
Food poisoning	5.7	(4)
Ornamental plant (oleander)	1.4	(1)
Miscellaneous (pine oil, brake fluid, Achromycin capsules, iodine, Dilantin capsules, Red Cross toothache drops, etc.)	18.6	(13)

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AMERICAN COLLEGE OF CHEST PHYSICIANS

Twenty-fourth Annual Meeting

THE 24TH annual meeting of the American College of Chest Physicians was held at the Fairmont Hotel, San Francisco, June 18-22, 1958. Over 1,400 physicians and guests attended the meeting.

The following resolution was passed by the executive council June 21:

"In view of the vital interest in improving public health and welfare, and in the eradication of diseases of the chest in particular, our position regarding the use of BCG (bacillus Calmette-Guerin) against tuberculosis in the United States should be made known. At the present time, there is insufficient evidence that significant protection is afforded by its use. The council fully endorses the anti-tuberculosis control program of the U. S. Public Health Service, which includes research in BCG, and urges the continued support of their program."

Fellowship certificates were presented to 160 physicians at the convention held on Saturday, June 21.

Dr. J. Winthrop Peabody, Washington, D.C., professor emeritus, diseases of the respiratory system, Georgetown University School of Medicine, was awarded the 1958 college medal for his meritorious achievements in the specialty of diseases of the chest, particularly in the field of postgraduate medical education. Dr. Peabody has served as chairman of the council on postgraduate medical education of the college since its inception in 1945.

The following officers of the American College of Chest Physicians were elected for the year 1958-1959:

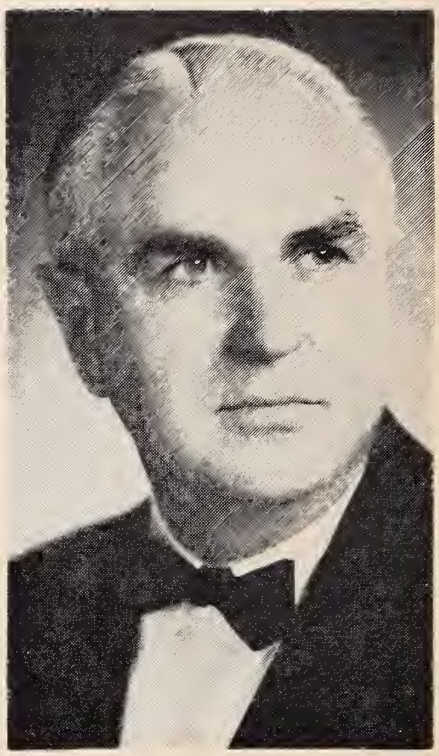
President, Donald R. McKay, Buffalo, N. Y.; President-elect, Seymour M. Farber, San Francisco, Calif.; First vice president, M. Jay Flipse, Miami, Fla.; Second vice president, Hollis E. Johnson, Nashville, Tenn.; Treasurer, Charles K. Petter, Waukegan, Ill.; Assistant treasurer, Albert H. Andrews, Chicago, Ill.; Chairman, board of regents, John F. Briggs, St. Paul, Minn.; and Historian, Carl C. Aven, Atlanta, Ga.

The College just passed its 6,000 membership mark this year.

CERTIFICATES OF FELLOWSHIP

The following physicians from Arizona were awarded Certificates of Fellowship in the American College of Chest Physicians:

Andre J. Bruwer, M.D., Tucson; John L. Cogland, M.D., Phoenix; Frederick W. Coleman Jr., M.D., Phoenix; Daniel H. Goodman, M.D., Phoenix; James T. Harold, M.D., Phoenix; Mayer Hyman, M.D., Tucson; Donald W. Merkle, M.D., Whipple; George Spurbeck, M.D., Phoenix; and Hans F. Stein, M.D., Tucson.



Howell S. Randolph, M.D.

NEW CHAIRMAN, AMERICAN COLLEGE OF CHEST PHYSICIANS

Dr. Howell S. Randolph is new board of governors chairman of the American College of Chest Physicians. A staff member of St. Joseph's, St. Luke's, Good Samaritan, and Maricopa County General hospitals, he was elected to the post at the organization's recent annual meeting in San Francisco.

HILL-BURTON GRANTS FOR ARIZONA

THE U.S. Department of Health, Education, and Welfare reports that as of June 30, the status of all Hill-Burton grants for the state of Arizona is:

Approved but not yet under construction: 23 projects at a total cost of $15,177,287, including $4,787,467 federal contribution, and designed to supply 914 additional beds.

Under construction: 11 projects at a total cost of $5,211,247, including federal contribution of $2,031,969 and designed to supply 262 beds.

Completed and in operation: Three projects at a total cost of $3,438,815, including federal contribution of $844,880 and supplying 170 additional beds.

CANCER RESEARCH

A UNIVERSITY OF Pennsylvania scientist has found an explanation for the paradoxical behavior of various anti-cancer drugs and, on this basis, has proposed a new approach to the problem of the chemical treatment of cancer.

This was announced by the American Cancer Society which supports research by the scientist, Dr. L. V. Heilbrunn, professor of zoology. Associated with Dr. Heilbrunn are Dr. W. L. Wilson and T. R. Tosteson, E. Davidson and S. A. Ferguson.

Dr. Heilbrunn several years ago discovered that before cells divided, their protoplasm changed from a fluid to a semi-solid gel. Unless the protoplasm clotted — much as blood does — the cells could not divide.

This finding inspired a search by the Heilbrunn and other research groups for substances which might prevent the clotting of protoplasm and the division of cells. Such a substance, if it proved specific for cancer cells and did not injure normal cells, would meet the theoretical requirements for a cancer cure.

Recently the Heilbrunn group tested their findings against a paradox noted by other scientists. The paradox is that virtually every drug used effectively to treat cancer in animals and humans itself causes cancer. X-rays, too, have these contradictory qualities of causing and, in some cases, even curing cancer.

The Pennsylvania scientists found that the anti-cancer drugs in certain dosages prevented cells from dividing. The drugs did this by keeping the cell protoplasm in a fluid state. Other workers have found that cells treated with these drugs would increase greatly in size; but, unable to gel and divide, eventually they would die.

These findings explained what anti-cancer drugs probably did to cells. But they left still unsolved one of the major problems: How do these drugs do it — on what part of the cell do they act?

Answer and Key

The Pennsylvania group now have an answer. And they have found a key to the chemistry of the cancer-causing and cancer-curing phenomenon.

They have noted that when cells are about to divide, calcium which is bound to other chemicals near the cell surface is set free. The freed calcium enters the cell interior and there causes the clotting which permits cell division.

Only in some instances, however, does the release of calcium permit cell division. Sometimes it blocks clotting and cell division. And on still other occasions, it peppers the cell interior with large cavities and kills the cells.

These diverse effects, it now appears, are due to the concentrations of the drugs used, whether or not they are dissolved (unless they are dissolved they may be inactive) and whether they produce an acid or alkaline environment within the cell.

Preliminary results indicate that in dilute concentrations the drugs prevent cell division, in moderate concentrations they promote cell division, and in very high strength they kill the cells.

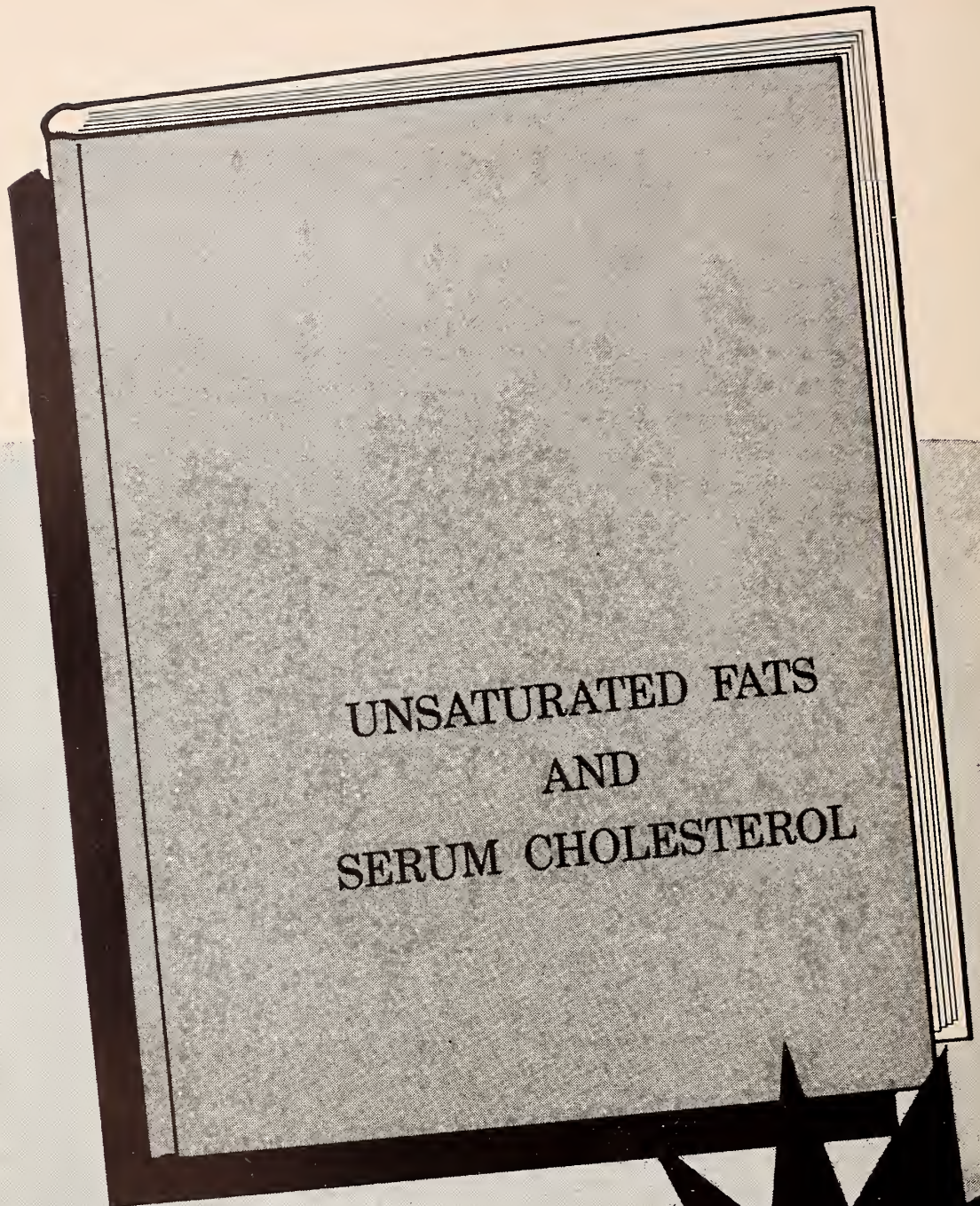
In these experiments, the Heilbrunn group used the eggs of sea urchins and certain worm eggs which are shed into sea water. The scientists believe that the process of cell division and protoplasm characteristics are the same throughout the animal kingdom. Because these cells divide with predictable frequency, they lend themselves to mathematically calculable experiments.

Among the anti-cancer drugs tested were two kinds of nitrogen mustard and urethane, and 6-mercaptopurine.

In all concentrations the drugs released calcium from the cell surface. Moderate amounts of the drug made the cell divide. The highest concentrations, however, produced bubble-like structures in the cell fluid and killed the cell. Small amounts kept the protoplasm fluid and blocked cell division.

Role of Urethane

This was the case with urethane, originally used as an anesthetic for experimental animals and later found both to benefit some cancer patients and also to cause cancer in animals. The Heilbrunn and other groups observed that urethane not only liquefied the outer membrane of the cell and released calcium, but it went into the cell's interior, where it prevented the freed calcium from causing protoplasmic clotting and cell division.



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As a result, MAZOLA CORN OIL is unusually well suited for helping achieve dietary adjustments commonly recommended by authorities on nutrition—that from one-third to one-half of the total fat in-take should be of the unsaturated type when serum cholesterol control is a problem.

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Each Tablespoonful of Mazola* Corn Oil Provides Approximately 126 Calories—and:

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Typical Amounts Per Diet

For a 3600 calorie diet	3 tablespoonsful
For a 3000 calorie diet	2.5 tablespoonsful
For a 2000 calorie diet	1.5 tablespoonsful

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The common anesthetic, ether, had a similar action — in dilute form it prevented cell division, and in high concentrations speeded cell division.

The experiments have led to a search for natural substances which block cells from dividing.

One of the kinds of cells which do not divide for many years is the female egg, or ovum. A girl baby is born with all the ova she ever will have — something in the ovary keeps these cells from dividing from birth until adult years when the ova are shed, one each month.

Dr. Heilbrunn found that ovaries contained a substance which stopped cells of many kinds from dividing. This substance he identified as protein-bound polysaccharides. Heparin, the anti-clotting agent used in blood conditions, is a polysaccharide, or complex of sugars.

In test tube experiments, polysaccharides extracted from ovaries have delayed or inhibited cell division. Moreover, ovarian extracts containing such polysaccharides have been rather effective in curing one type of cancer in mice, as has been shown by experiments on some thousands of animals. A report on this work is now in press in the Journal of the National Cancer Institute.

The Heilbrunn group feel that the principles established in this basic research may be used to advantage in man's search for effective anti-cancer drugs.

———

PHYSICAL chemists at the University of Cincinnati have produced a picture of the arrangement of the particles and the energy sources in a cancer-causing molecule and helped to open the way to a basic understanding of disease-producing chemistry.

The results of this research by Drs. H. H. Jaffé, Si-Jung Yeh and R. W. Gardner were reported by the American Cancer Society which supports the project. The picture produced definitely resolves an old controversy on the nature of atomic arrangements in a compound which can transform a normal, useful cell into one which becomes a predator on the body and brings death to the host.

The results are based on observations of the atomic groupings and electronic forces within and around a molecule of an azo dye called p-dimethylaminoazobenzene, formerly used as a food coloring in butter, and now commonly fed to rats to induce liver cancer. The determinations of atomic arrangements permitted the scientists to make exquisite mathematical calculations of the enormous energies in various areas of the azo dye molecule. These calculations lay the groundwork for investigating the cancer-inducing reactions between azo dyes and cell chemicals.

The scientists used a spectrophotometer to identify the atoms and their configuration within the azo dye molecule.

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Excerpts of informal remarks by Mr. Mefford R. Runyon at the regional meeting held in New York City, June 4 and 5, 1958:

CANCER of the rectum and colon will be the subject of the scientific session at the annual meeting next fall. And we are hoping that when the time is ripe, to launch an attack on this particular cancer somewhat along the line of the breast self-examination and the cytology programs. It seems this is a most effective way in which to attack the cancer problem — that is against cancer of a particular site, mobilizing professional and public education and service.

The society has concerned itself for many years in the subject of appropriations — financial support — for the National Cancer Institute, the cancer work of the United States Public Health Service. The society has taken the responsibility — I suppose you might say — to inform the congress — through appropriate hearings and through appearances and statements before proper committees — of the growing magnitude of the cancer problem in this country and of the necessity of an all-out attack on it, if we are to handle the thing with any degree of adequacy. This educational process has resulted in the congress's growing appreciation of this disease problem. It is making the necessary appropriations and other arrangements for attacking it in an increasingly aggressive manner. Last year the appropriations were about $56 million for the National Cancer Institute. This year the house already passed $59 million. Hearings before the senate appropriations sub-committee were held on May 16, and I believe the mark-up has been made. This is usually somewhat higher than a house figure. (The senate on June 20 passed a figure of $81 million.) Then the two

groups go into conference and it is our expectation that perhaps this year they will come up with at least $64 or $65 million for the work of the National Cancer Institute.

Medical Facilities Needed

There is another area of federal appropriations in which we have played an effective part. That is in the field of construction of much needed medical research facilities. Three years ago, legislation was passed authorizing appropriation of $30 million a year on a matching basis, for this purpose — not only cancer research facilities, but medical research facilities of all sorts — $90 million spread over a three year period, and the people who got these grants were required to put up at least another $90 million. That proved to be an exceptionally effective piece of pump priming. All the money authorized was applied for several times over and it is expected that the authorization will be extended until the backlog of required medical research facilities is taken care of.

Last year there was also a proposal for appropriations for the construction of medical teaching facilities in addition to research facilities. The medical schools need financial help to expand their facilities to take care of the greater number of subjects which a doctor has to learn now-a-days, as well as the greater number of students. The bill was not passed last year, but this year it is being tackled again and I think the outlook is fairly good for some sort of legislation along this line, probably in the current congress. This is a matter in which the cancer society is not taking a lead, but we are working closely with the Association of American Medical Colleges and with others who are interested.

Smoking

In the field of cigaret smoking and its influence as a health hazard or as a cause of death, there are developments which I would like to touch on very briefly. The matter of how to approach high school students before their habits are crystalized is one which we are looking into carefully. In the current year, we hope through some field tests to find out what is the best way of reaching them to make certain that they decide for themselves about smoking with full knowledge before the cigaret habit becomes fixed. There have been some pamphlets and some movies produced — these movies are not ours — but we think the proper psychological approach to the high school students — what motivates them — is something we should study carefully before we act.

The next interesting development in this field of smoking and lung cancer will be the statistical report from the U. S. Public Health Service which will be given at the Seventh International Cancer Congress in London. They have been conducting a study on the holders of National Service life insurance somewhat along the line of the study we made on 200,000 men — excepting here they have a much larger group, a group that goes back to World War I as well as World War II. They have tabulated their smoking habits, relating them to subsequent death rates, by causes, and so on. Rumors about this report caused the stock market and tobacco stocks to react very sharply. I do not know where the rumors came from, but the New York Times ran it down and found from Dr. Harold Dorn he would give no information at this time, but stated at the proper time the full report would be disclosed.

ERYTHROBLASTOSIS FETALIS
by **Fred H. Allen, Jr.**, M.D. and **Louis K. Diamond**, M.D. 143 pages. Illustrated. (1058) Little, Brown. $4.

Here is a clear, concise presentation of the current status of erythroblastosis and the blood factors by which it is caused. The potentially responsible blood groups are listed, the pathogenesis is reviewed and considerable attention is directed to clinical diagnosis. Indications and techniques of exchange transfusion are well detailed. The authors are from Harvard Medical School.

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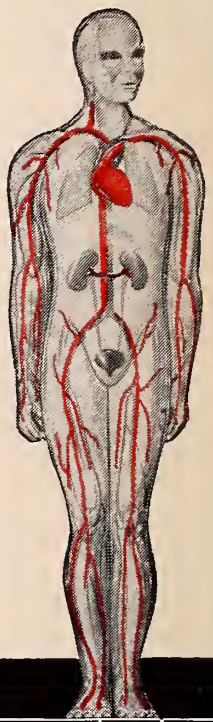
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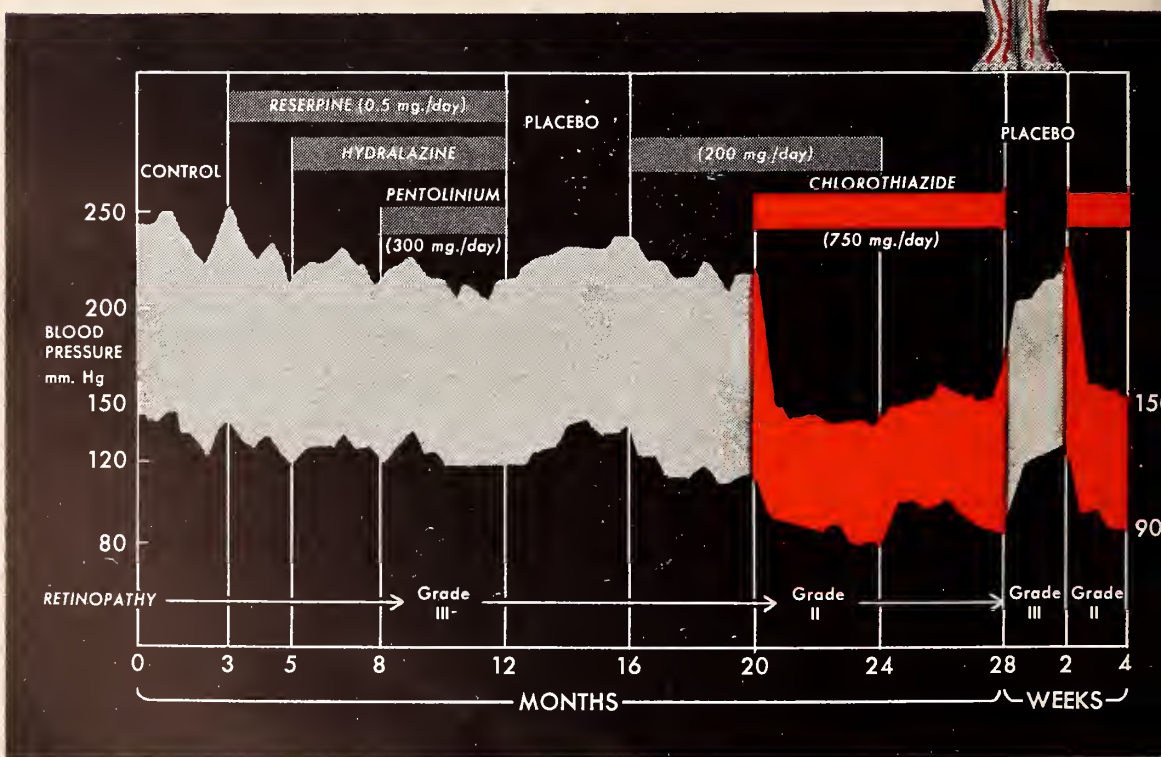
Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."

Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. 166:137, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."





In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 1957.

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QUIZ — HISTORY OF MEDICINE* (Cont.)

These questions were used by John Green, M.D., in his course for premedical students at the Arizona State College at Tempe. We suggest that the reader take this quiz. The answers will be found on another page. Forty per cent correct answers can be considered fair, 70 per cent good, and 90 per cent excellent.

By John Green, M.D.

1. The sixth king of the 1st dynasty of Babylon, Hammurabi, in 1900 BC influenced the practice of surgery. How did he accomplish this?

2. Who was the special god of medicine of Egypt? His cult anteceded that of Aesculapius by many centuries. He lived about 3000 BC, was a magician-physician, priest, sage, scribe, astronomer, grand vizier, architect, etc.

3. Why did the physicians of India, China, and Arabia know so little about anatomy?

4. What was the major basis for the knowledge of anatomy possessed by Hippocrates, Galen and their contemporaries?

Was Herophilis, the noted physician of Alexandria of the third century BC any exception from the standpoint of his anatomical experience and knowledge?

Why?

5. Julius Caesar profoundly affected the medical profession for the better. In what way did he do this?

6. Albucasis, the greatest surgeon of Islam, cauterized for many medical conditions during the 10th century, and this led to future excesses in the use of cautery. What was the rationale for the use of cautery in disease?

7. Gilles de Corbeil was one of the most renowned Salernitans of his time. His medical works on what subject were standard for the next 500 years? This subject loomed large in all diagnoses from about 1160 to 1660 AD, and was almost always included in pictures of physicians of the period.

8. The Medical Renaissance has been dated to the discovery of an important manuscript in 1443 and its publication in 1478. Who wrote this manuscript?

9. Paris, in the times of Ambroise Pare — the towering surgical figure of the 16th century, had its medical profession separated into three classes. What were they?

10. William Harvey will always be remembered for providing the discovery which enabled physiology to advance and clinical medicine to become intelligible. What was this discovery, published in 1628 AD?

11. Discuss what you know about Edward Jeanner (1749-1823) and his contribution to medicine.

12. Discuss what you know about William Beaumont (1785-1853) and his great contribution to medicine.

13. With what two names do you associate the discovery of the contagiousness of childbed fever (puerperal sepsis)?

14. The medical achievements of the 19th Century were impressive. Name six major achievements of this period.

Answers on page 686.

*Final Exam, History of Medicine, Arizona State College at Tempe, Pre-medical Course.

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ANSWERS TO HISTORY OF MEDICINE QUIZ

1. Codified the responsibility of the physician to his patients.

2. Imhotep.

3. Dissention was not permitted by the Hindu, Buddhist or Moslem religions.

4. Animals, except that human osteology was fairly well understood. Herophilis dissected humans with considerable success.

5. In 46 BC, Julius Caesar granted Roman citizenship to physicians, the majority of whom were Creek slaves.

6. The theory of counter-irritation. It was used in migraine, epilepsy, cramps, etc., wherever the patient complained of pain or discomfort.

7. He wrote on the urine.

8. Celsus.

9. Physicians, surgeons, barber-surgeons.

10. The circulation of the blood.

11. The story of vaccination for smallpox.

12. The story of the study of gastric physiology made possible by the gastric fistula of Alexis St. Martin following a gunshot wound of the abdomen.

13. Oliver Wendall Holmes Sr. and Ignaz Semmelweis.

14. (1) The discovery of auscultation by Laennec, 1816, (2) The introduction of x-ray by Roentgen, 1895, (3) The cellular theory of Virchow, shedding light on the nature of disease, and destroying the erroneous humoral doctrine of the previous 2,000 years, (4) The rise of bacteriology, Pasteur, Koch, etc., (5) The discovery of ether anesthesia, and (6) The development of antiseptic and aseptic surgery.

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NATIONAL FUND FOR MEDICAL EDUCATION

TO HELP support the search for new medical knowledge and to increase the number of trained medical researchers, the National Fund for Medical Education has established a medical research program through which contributions from united funds, community chests, voluntary health agencies and other organizations will be channelled into basic research, Fund President S. Sloan Colt announced.

The United Community Funds and Councils of America, whose local affiliates have expressed a desire to help support broad fundamental programs of basic medical research on a national level, have agreed to support this new research program.

It is our hope, Colt said, that the voluntary health agencies which have so generously supported the categorical research into specific diseases will also support this new program.

This expansion of the National Fund's program, it was stated, will in no way affect its campaign among corporations to obtain support for the teaching budgets of the accredited medical schools in the United States.

Colt, who recently retired as chairman of the Bankers Trust Company of New York City, declared that the contributions sought for the new program are over and above local contributions for research in specific diseases: cancer, heart, polio, cerebral palsy and others. He added:

"By supplementing categorical research into the specific diseases, this research program of the fund will help to broaden overall research activities, and will be an important stimulus to the advancement of the medical sciences."

The new program, it is expected, will not only help advance the search for basic medical knowledge and encourage the training of research personnel, but will also help the nation's medical schools and other research institutions maintain a proper balance between basic and "project, or applied, research."

The greatest need in research today, Colt



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Robins

1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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continued, is for the support of basic research and the training of research personnel. The bulk of research money available at present is for project research. Creative research — the exploratory probing and groping in the unknown — too often must be financed out of meager general funds.

In 1952, the fund president pointed out, a committee of medical educators published the results of a five year study of medical education in which they declared that, in the financing of medical research, the most urgent need is for institutional — not project — research.

Because a major portion of medical research is carried on in the medical schools, whose faculties both teach and conduct research, Colt said he was confident that the new program would help many schools to further improve the quality of undergraduate medical education. Fund grants, at present principally supported by corporation contributions, are unrestricted but are used primarily for support of teaching budgets of the medical schools. Today, pure research and applied research supplement each other and both are important elements in the educational function of the schools.

Details of the new program were worked out by a committee composed of business men and educators, which included:

Dr. Vernon W. Lippard, Dean, Yale University School of Medicine, chairman; S. Sloan Colt, president, National Fund for Medical Education; Dr. James M. Faulkner, medical director, Massachusetts Institute of Technology; Dr. Joseph C. Hinsey, director, New York Hospital — Cornell Medical Center; Mr. T. V. Houser, former chairman, Sears Rosebuck & Co.; Dr. Carlyle Jacobsen, president, State University of N. Y. College of Medicine at Syracuse; Devereux C. Josephs, chairman, New York Life Insurance Company; Dr. John McK. Mitchell, Dean, University of Pennsylvania School of Medicine; Eustace Seligman, partner, Sullivan & Cromwell; Juan T. Trippe, president, Pan American World Airways; and Dr. W. Clarke Wescoe, Dean, University of Kansas School of Medicine.

The National Fund for Medical Education was formed in 1949 under the leadership of President Dwight D. Eisenhower, then president of Columbia University; former President Hoover, who is honorary chairman of the fund's board of trustees; leading educators, university presidents and prominent business leaders.

The fund recently awarded $3,178,825 to the medical schools, bringing to $15,843,766 the total awarded since its first grants were made in 1949.

STATEMENT OF PRINCIPLES CONCERNING PARAMEDICAL WORKERS IN RELATION TO MEDICINE

By National Medical Foundation for Eye Cancer*

I

MEDICINE must re-establish its primacy, its over-all responsibility and authority, in the realm of medical care.

II

Medicine should undertake to define the conditions under which any paramedical groups may or should be licensed. (Does the public interest require their licensure, or would licensure only lead to independent functioning which is not in the public interest?)

III

In the interest of a better co-ordinated professional service, medicine should determine and define the need for each paramedical group, its functions, its educational standards, and the manner in which its members (whether licensed or unlicensed) are to be recognized and supervised.

IV

Medicine should assert the principle that every physician has the legal right to do anything for the patient that his medical care requires, and that he further has the right to delegate to any paramedical worker any technical procedure.

V

Medicine should further assert the principle that whatever privileges may at any time be granted to limited practitioners or paramedical workers, whether by law or otherwise, such grant in no way circumscribes the physician's authority in that field, and in no way restricts the practice of medicine by the physician.

VI

The medical profession as a whole should

*Adopted as an official statement of the foundation by its board of trustees, May 27, 1958. Additional copies available from the foundation at 250 W. 57th St., New York 19, N. Y.

recognize the basic fact that whenever any paramedical group succeeds in establishing independent status in any area of professional medical practice, or in circumscribing or compromising the authority of the physician in any area of professional medical practice, the threat or the damage extends to all of medicine and should be of concern to the entire medical profession.

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LOCATION INQUIRIES

ACUFF, WILLIAM J., M.D., 606 W. Sixth St., Caruthersville, Mo.; *GP;* graduated from the University of Tennessee School of Medicine, 1956; interned at U.T. Memorial Hospital, Knoxville, Tenn. Has since been engaged in general practice and surgery. Age 28. Desires to locate in the Phoenix or Tucson area. Prefers industrial-general type practice. Is available now.

BRILL, JAMES R., M.D., 23 Church St., East Randolph, N. Y.; *GP;* graduated from University of Buffalo, 1943, and interned at Jefferson Medical College Hospital. Is exempt from military service and is 41 years of age. Desires assistant or group practice and is available immediately.

HILLMAN, FREDERICK JOSEPH, M.D., 428 Medical & Dental Bldg., Everett, Wash.; *GS;* age 36, a graduate of the Washington University School of Medicine and interned at Madigan Army Hospital, Tacoma, Wash. Has completed his military obligations. Has had solo surgical practice in Washington and now wishes to relocate with clinic or associate with surgical practice. Will be available as soon as present office can be closed.

SHARP, WILLIAM C., JR., M.D., 109 Hale Road, Knoxville, Tenn.; *Path;* graduated 1946 from University of Tennessee School of Medicine and interned at Knoxville General Hospital. Has served a residency in pathology at the Armed Forces Institute of Pathology. Has had 10 years active duty in the armed forces. Will practice specialty of pathology and will be available Sept. 1, 1958.



SUGIYAMA, WILLIAM M., M.D., U. S. Army Medical Center, Camp Zama, APO 343, San Francisco, Calif. Is 41 years old, oriental, and citizen by birth. Is a graduate of Western Reserve University, 1949, and interned at the Cleveland City Hospital. Desires group practice and wishes to do general surgery. Available Aug. 30, 1958.

McSWEENY, AUSTIN J., M.D., 1217 Martin Road, Janesville, Wisc., *I;* a graduate of Stritch Medical School, Chicago, 1949, and interned at Buffalo City Hospital. Is licensed in the states of Illinois, Minnesota, and Wisconsin and certified by the American Board of Internal Medicine. Desires clinic or associate to practice specialty of internal medicine and is available now.

———

LOCATION OPPORTUNITIES

ASHFORK — Pop. 700. North centrally located. Railroad center. Contact the Women's Club, Ashfork, Ariz.

BENSON — Excellent opportunity for GP. This St. David-Benson trade area has about 5,000 population with only one doctor available. A small sleep-in hospital can be set up very easily. Hospital 25 miles away. Chamber of commerce will furnish telephone answering service, nine to five. Contact Bernard Fisher, D.D.S., Medical Committee of the Chamber of Commerce, Benson, Ariz., or James M. Hesser, M.D., Sixth and Huachuca, Benson, Ariz.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of medical doctor. Contact Ivy N. Moser, R.N., Camp Verde, Ariz.

FLAGSTAFF — Pop. 17,500. Largest city in the north central Arizona trading area. Excellent opportunity for an EENT doctor. Contact K. O. Hanson, M.D., secretary, Coconino County Coconino County Medical Society, 5 N. Leroux, Flagstaff, Ariz.

GILA BEND — Pop. 2,500. 80 miles west of Phoenix. Nearest town to the Painted Rock Dam Project. Good opportunity for general practitioner. Cattle, cotton, and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HAYDEN — Pop. 3,000 to 4,000. Industrial practice. Approximately 200 employes and dependents. Only part-time required. Coverage: Metropolitan Surgical Plan. Physician may engage in private practice also. Small company-owned clinical building (new) available for use, with X-ray equipment, diathermy equipment, etc. Full-time nurse available to assist; clerical work to be handled by company. Company housing facilities available for physician — small rental. Beginning Sept. 1, 1958. Contact: American Smelting & Refining Company, Mr. Ben Roberts, Dept. Mgr., P. O. Box 1111, El Paso, Texas.

HOLBROOK — Population above 7,000. Located in the heart of the northeastern pine country of Arizona on U. S. Rt. 66. Need services of GP. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

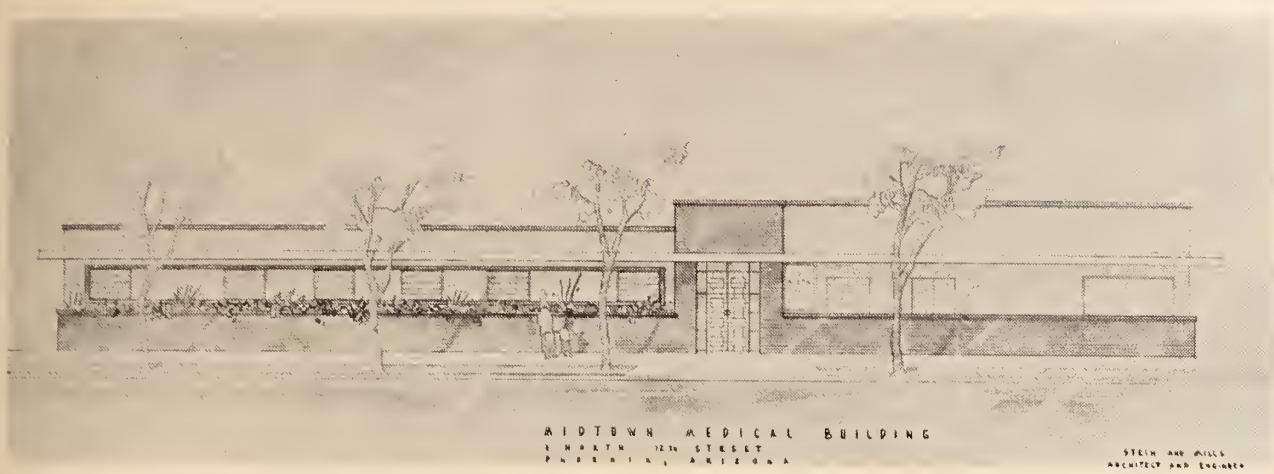
MIAMI — Opportunity for GP. Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community near New Mexico-Arizona border. Pop. 10,000. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

ST. JOHNS — Seriously need a doctor of medicine, preferably a general practitioner, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. Peter Falbo, president, chamber of commerce, 9112 West Van Buren St., Tolleson, Ariz.

TUCSON — The VA hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not



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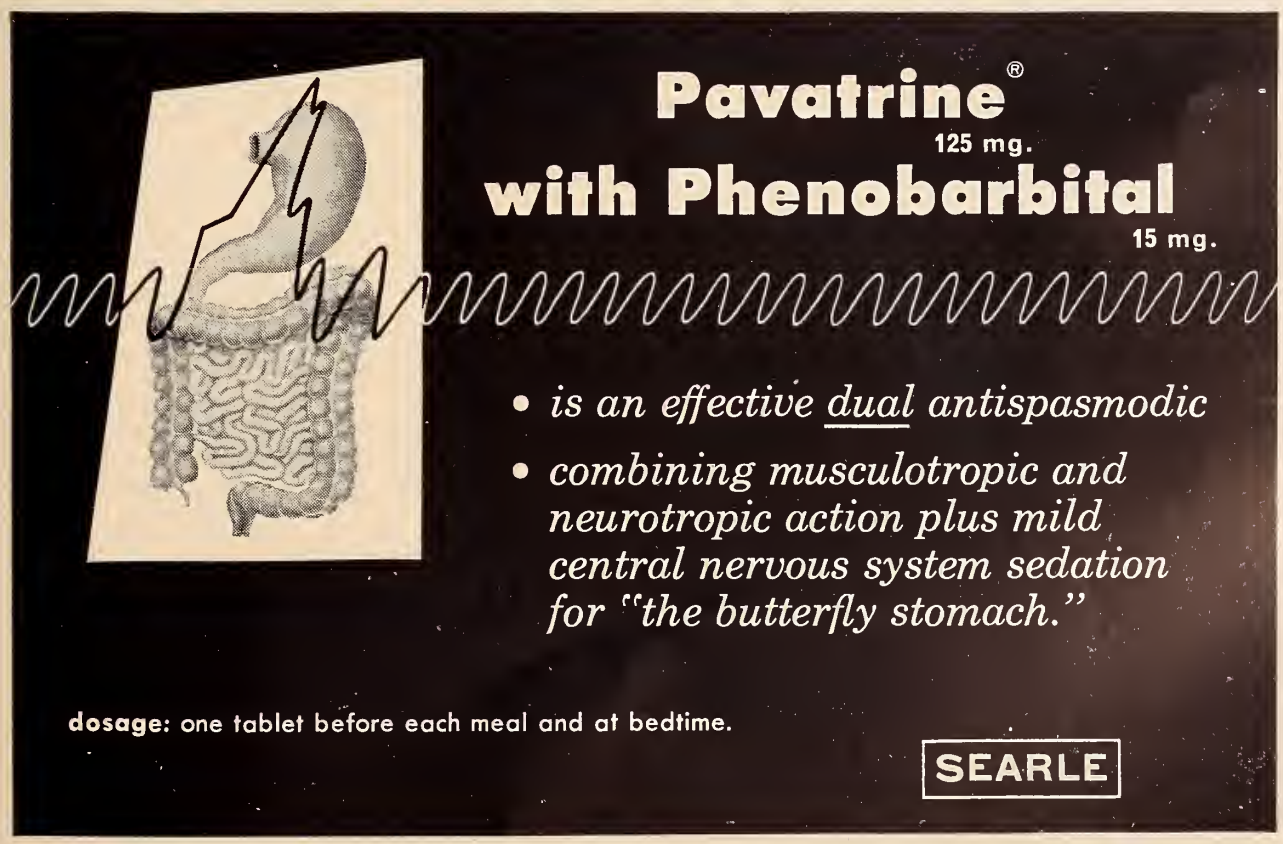
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necessarily an Arizona license). Contact S. Netzer, M.D., Director, Professional Service, VA Hospital, Tucson, Ariz.

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Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Ariz.

SOUTHWESTERN SURGICAL CONGRESS

ANNUAL AWARD COMPETITION

Eligibility

THE AWARD competition is open to M.D.s in active training in general surgery, or the surgical specialties, or who have been in private practice no more than three years beyond completion of resident, interne and post-graduate training. Eligiblity is further restricted to those individuals who are within the geographic confines of the Southwestern Surgical Congress.

Subject Material

Subject material acceptable shall be either pure investigative or scientific research, or clinical research and investigation, which shall consist wholly or largely of the essayist's contributions, the work to be started while the doctor is in training and must be completed and reported within three years of completion of his training. The work shall not be merely medical and social service reporting for the convenience of a chief of staff, but is intended to encourage original study and investigation on the part of the essayist himself. The essayist should assume the major role in preparation of the material so that in the event of publication, he himself shall be considered the senior author of such essay. The quality of the paper to receive an award consideration must be of sufficient merit to satisfy the essay award committee's evaluation, and only such papers as merit the committee's acceptance will be judged in the competition.

Presentation

The essayist(s) whose paper is selected to be read at the annual meeting during the scientific program, will be the invited guest of the Southwestern Surgical Congress during the annual meeting; this to include the essayist's wife if he is married, and includges lodging, meals and the social functions of the organization, but does not provide transportation to and from the meeting, which is the essayist's own responsibility.

The first award to be made at the next annual meeting of the Southwestern Surgical Congress, Denver, Colo. — March 30-31 — April 1-2, 1959.

Abstracts Due for Consideration by Dec. 15, 1958

Interested persons please contact J. R. Schwartzman, M.D., 2415 E. Adams, Tucson, Ariz.

The total amount of the awards has been approved at $600, to be distributed in the following manner: $300 for first, $200 for second, and $100 for third prize in the award competition.

BURNS: Pathology and Therapeutic Aplications
by Simon Sevitt, M.D. 364 pages. Illustrated. (1957) Butterworths. $7.50.

The author, a pathologist, has collected his data and experience primarily from burns observed over a period of 10 years at the Birmingham Accident Hospital. Pathologic changes are interpreted in terms of clinical effects. Chapters take up the skin, infection, mortality, and body systems affected in the burned patient. Clinical and therapeutic lessons conclude most chapters. A thorough presentation takes a new slant, that of the pertinent pathology.

Stacey's Medical Books, San Francisco, California.

MANUAL OF PEDIATRIC PHYSICAL DIAGNOSIS
by Lewis Barness. 195 pages. Illustrated. $1957). Year Book. $4.

This booklet grew from expanded mimeographed notes for medical students, Pennsylvania, on the physical examination of children. In addition to listing and briefly discussing physical signs, an excellent introductory section on establishing rapport with the child is included. Techniques for restraint are also described. It is pocket size and the type is good.

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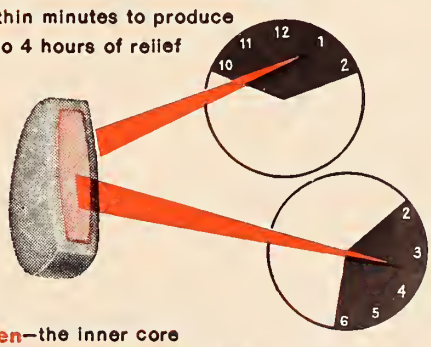
With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each timed-release tablet keeps the nasal passages clear for 6 to 8 hours— provides "around-the-clock" freedom from congestion on just three tablets a day

first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief



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Phenylpropanolamine hydrochloride	50 mg.
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Also available: Triaminic Juvelets, timed-release, half-dosage tablets; Triaminic Syrup, for children and those adults who prefer a liquid medication.

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Future Meetings

ARIZONA ACADEMY OF GENERAL PRACTICE CONVENTION:

Place: Valley Ho, Scottsdale, Ariz. *Date:* Oct. 2-4, 1958. *Registration Fee:* $5.

In October, the Arizona Academy of General Practice is holding its annual state convention at the beautiful Valley Ho, in Scottsdale, Ariz. This is going to be an excellent program, and all physicians are cordially invited. The following is a tentative program:

Thursday, Oct. 2:

9 a.m. — Registration

Registration fee $5. This fee will include the president's cocktail party and buffet supper, board of directors' meeting, meeting of the nominating committee, and exhibits.

2 p.m. — Call to order — President Walter Brazie, M.D.

2:30 p.m. — "Electrocardiography, Its Techniques and Clinical Applications" — Samuel J. Grauman, M.D., Tucson, Ariz.

3:30 p.m. — "Current Status of Sterility Investigations — Both Medical and Psychological" — Robert N. Rutherford, M.D., Seattle, Wash.

4:30 p.m. — Adjourn for afternoon

6:30 p.m. — President's reception, informal, cocktail party, buffet dinner.

Friday, Oct. 3:

9 a.m. — "Electroencephalography, Its Techniques and Clinical Application" — Richard D. Walter, M.D., Los Angeles, Calif.

10 a.m. — "Lumps in Kids" — William Clatworthy, M.D., Columbus, Ohio.

11 a.m. — Recess.

11:30 a.m. — Annual business meeting.

2 p.m. — "Modern Amnesia and Analgesia Routines in Pregnancy" — Robert N. Rutherford, M.D., Seattle, Wash.

3 p.m. — "Recognition and Treatment of Some Common Ocular Problems" — James Calkins, M.D. and A. K. Hansen, M.D., Tucson, Ariz.

4 p.m. — "The Evaluation of Psychosomatic Complaints" — Frank J. Ayd Jr., M.D., Baltimore, Md.

5 p.m. — Adjourn.

Saturday, Oct. 4:

9 a.m. — "Stelazine Therapy for the Psychosomatic Patient" — Frank J. Ayd Jr., M.D., Baltimore, Md.

10 a.m. — "When to do What in Infant Surgery" — H. William Clatworthy Jr., M.D., Columbus, Ohio.

11 a.m. — "Electrocardiography, Audiocardiography, Its Clinical Applications and a Demonstration" — Samuel J. Grauman, M.D., Tucson, Ariz.

12 noon — Adjournment of the 1958 annual convention.

2 p.m. — Golf tournament

7 p.m. — Formal dinner dance and cocktail hour. Installation of new president. Award for golf tournament. Guest speaker — Mac F. Cahal, secretary, AAGP. Dancing.

PHYSICIAN'S VENEREAL DISEASE SEMINAR

TUCSON and Phoenix will be the setting for two physician's Veneral Disease Seminars to be held during the week of October 6th, according to Clarence G. Salsbury, M.D., Commissioner of Health. One of these seminars will be held on October 7th and 8th in Tucson; the other on October 9th and 10th in Phoenix.

According to Doctor Salsbury, these seminars will be a joint project of the Arizona State Department of Health, the Venereal Disease Branch of the U. S. Public Health Service, the Arizona Medical Association, and the medical societies of Maricopa and Pima counties.

The Venereal Disease Branch will send a team of four physicians to conduct these seminars. These men are national leaders in the field of venereal disease control. They will present the latest tchniques and methods used for the diagnosis and management of venereal disease as well as discuss research in the various phases of the diagnosis and treatment of these diseases.

Evan W. Thomas, M.D. — Consultant in Venereal Diseases, New York State Department of Health; Emeritus Professor of Clinical Medicine (Syphilology), New York University, College of Medicine; formerly Director of the Syphilis Service at the Bellevue Hospital in New York City, will discuss the management of syphilis in general practice.

Sidney Olansky, M.D. — Research Associate, Duke University School of Medicine, Durham, N. C., will talk on the laboratory tests for syphilis

and their interpretation.

Warfield Garson, M.D. — Director, Venereal Disease Experimental Laboratory, C.D.C., U. S. Public Health Service, Research Professor and Head, Department of Experimental Medicine, School of Public Health, University of North Carolina, Chapel Hill, N. C., will discuss the diagnostic and treatment of gonorrhea.

William J. Brown, M.D., M.P.H. — Chief, Venereal Disease Branch, Communicable Disease Center, U. S. Public Health Service, Atlanta, Georgia, will discuss the necessity of a united front in the control of venereal diseases in the United States.

These four physicians will join local participants on a special panel to discuss the topic "Meeting Today's Venereal Disease Problems."

Never before has it been possible to get so many specialists in this field to come to Arizona and discuss this problem. This seminar will present an opportunity for the physicians in the state to meet and brush up on venereal diseases and to hear of the latest research developments in this field.

Arizona is still rated as a high prevalence venereal disease state. Over 4,000 cases of venereal diseases were reported in the state last year.

Present plans call for the seminar to be held in the Union Building at the University of Arizona in Tucson. This seminar will consist of three meetings, an afternoon session on the 7th and an afternoon and evening session on the 8th. In Phoenix the meeting will be at the main auditorium of the Phoenix Library. There will be an afternoon session on the 9th and an afternoon and evening session on the 10th.

NATIONAL

INTERNATIONAL College of Surgeons — Southeastern regional meeting, Miami Beach, Jan. 4-7, 1959. For information, write to Harold O. Hallstrand, M.D., 7210 Red Road, South Miami, Fla., chairman.

SOUTHWESTERN MEDICAL ASSOCIATION

ANNUAL MEETING
Pioneer Hotel
Tucson, Ariz.
Oct. 23, 24, 25, 1958
Dinner dance Oct. 24
Golf game Oct. 25
High school day visitation, University of Arizona, Oct. 25
Women's special program
Football game, Oct. 25,
University of Arizona vs. Idaho
Regional meetings

You are invited to hear the following speakers:

1. John I. Brewer, M.D. — Professor of Gynecology & Obstetrics, Northwestern University, Chicago, Ill.
2. R. V. Platou, M.D. — Professor and Head of Department of Pediatrics, Tulane University, New Orleans, La.
3. George C. Andrews, M.D. — Consulting Dermatologist to Columbia Presbyterian Medical Center, New York City, N. Y.
4. John W. Henderson, M.D. — Associate Professor of Ophthalmology, Mayo Foundation, Rochester, Minn.
5. Robert M. Zollinger, M.D. — Professor of Surgery, Ohio State University, Columbus, Ohio.
6. Reginald H. Smart, M.D. — Professor of Medicine, University of Southern California, Los Angeles, Calif.
7. John R. Schenken, M.D. — Professor of Pathology, University of Nebraska, Omaha, Neb.

SOUTHWESTERN MEDICAL ASSOCIATION OFFICERS

President — Louis G. Jekel, M.D., Phoenix
President-elect — A. R. Clauser, M.D., Albuquerque
Vice president — Wendel Peacock, M.D., Farmington
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David Rusek, M.D., Chihuahua City
Merle Thomas, M.D., El Paso
Louis W. Breck, M.D., El Paso
Celso C. Stapp, M.D., El Paso

LOCAL COMMITTEES

General chairmen — Leo Kent, M.D.; H. D. Cogswell, M.D.

Program — James Fritz, M.D., chairman
Kenneth Baker, M.D.
Sherwood Burr, M.D.
Howard Cogswell, M.D.
George Fraser, M.D.
Leo Kent, M.D.
Hugh Thompson, M.D.
Arrangements — J. W. Cortner, M.D., chairman
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Elliott Stearns, M.D.
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Transportation — James Brady, M.D., chairman
Registration — Rockwell Jackson, M.D., chairman
John Roads, M.D.
John Gillette, M.D.
Finance — D. J. Heim, M.D., chairman
R. E. Jackson, M.D.
Exhibits — John Magee, M.D., chairman
Mr. Browden
Golf — E. R. Updegraff, M.D., chairman
Football — D. L. Secrist, M.D., chairman
Clinical motion pictures — Herman Rhu, M.D., chairman
H. P. Limbacher, M.D.
Entertainment — Robert Johnson, M.D., chairman
Jackson Pyre, M.D.
George Fraser, M.D.
Women's Activities — Mrs. James N. Lane, chairman

WOMEN'S CONVENTION COMMITTEE

Mrs. James N. Lane — general chairman
Mrs. Howard Cogswell
Mrs. Wesley Fee
Mrs. Ed. Updegraff
Mrs. F. Shallenberger
Mrs. John Roads
Mrs. James Fritz
Mrs. Louis Hirsch
Mrs. Elliott Stearns
Mrs. James Brady
Mrs. Wright Cortner
Mrs. Darwin Neubauer
Mrs. Wesley Soland
Mrs. Herman Rhu

REGISTRATION:
(Mezzanine, Pioneer Hotel)
Wednesday, Oct. 22 — 9 p.m. until 6 p.m.
Thursday, Friday, Saturday — 8:30 a.m. until 4 p.m.
Registration fee — $10
(Interns, Residents, Military personnel and Nurses excluded from fee.)

ENTERTAINMENT:
Thursday, Oct. 23
Cocktails and chuckwagon dinner — Desert Willow Ranch
(Bring a jacket or coat — our nights get cool. Informal wear.)
Friday, Oct. 24
Cocktail hour
(Hosted by Southwestern Surgical Supply Company)
President's dinner
Serenade by Tucson Boys' Choir
Saturday, Oct. 25
Golf, Swimming, Tennis — Tucson Country Club
Football, 8 p.m. — University of Arizona vs. University of Idaho

WOMEN'S ENTERTAINMENT:
Thursday, Oct. 23
Coffee — Roof Garden — 9:30 a.m. - 11 a.m.
University of Arizona tour — 2:30 p.m. - 4:30 p.m.
(Conducted by the University Faculty)
Cocktails and chuckwagon dinner — 6:30 p.m.
(Casual dress — light coat may be needed)
Desert Willow Ranch
Coffee — Roof Garden — 9:30 a.m. - 11 a.m.
Tucson Country Club
Ladies' golf day — 8 a.m.
Tennis and swimming — 10 a.m.
Cocktails and luncheon and style show — 1 p.m. - 3 p.m.
(Around the pool — casual dress)
Style show courtesy of Mills-Touche Mens' Store
and
Dorothy Rice
Cocktail party — Host, Southwestern Surgical Supply Company
Presidential dinner
Thursday, Oct. 23, 1958
9 a.m. - 2 p.m. — Registration — Pioneer Hotel

MORNING SESSION
Everett W. Czerny, presiding
9:15 — Invocation — Rev. Jerry Wallace.
9:20 — Welcome — F. J. Lesemann, M.D., president, Pima County Medical Society.

9:30 — President's address — Louis C. Jekel, M.D.

10 — Coffee break.

10:15 — Subject: "The Diagnosis and Treatment of Common Dermatoses of the Hands" — George C. Andrews, M.D., Consulting Dermatologist, Columbia Presbyterian Medical Center, New York, N. Y.

10:45 — Subject: "The Cystic Ovary — Surgical on Non-surgical?" — John R. Schenken, M.D., Professor of Pathology, University of Neb.

11:15 — Subject: "Pelvic Pain" — John I. Brewer, M.D., Professor of Obstetrics and Gynecology, Northwestern University.

11:45 — Subject: "The Surgical Importance of Pancreatitis" — Robert M. Zollinger, M.D., Professor of Surgery, Ohio State University.

Round Table Luncheon Meetings — with discussion of morning papers.

1. Surgery — Robert Zollinger, M.D. Moderator: H. D. Cogswell, M.D.

2. Dermatology. George C. Andrews, M.D. Moderators: Kenneth C. Baker, M.D., and Louis G. Jekel, M. D.

3. Gynecology and Pathology. John L. Brewer, M.D., and John R. Schenken, M.D. Moderators: George Fraser, M.D., and Louis Hirsch, M.D.

AFTERNOON SESSION

2:15 — Business meeting — Golf and films

EVENING

Chuckwagon dinner — Desert Willow Ranch

Friday, Oct. 24, 1958

9 .m. - 2 p.m. — Registration.

MORNING SESSION

SEMINAR IN PEDIATRICS:

9:20 — Pathology — "Laboratory Diagnosis of Hemolytic Disease of the Newborn and the Selection of the Donor for an Exchange Transfusion in Hemolytic Disease" — John R. Schenken, M.D., Professor of Pathology, University of Neb.

9:40 — Dermatology — "Treatment of Acne" — George C. Andrews, M.D., Consulting Dermatologist, Columbia Presbyterian Medical Center, New York, N. Y.

10 — Gynecology — "Ovarian Lesions During Childhood" — John I. Brewer, M.D., Professor of Obstetrics and Gynecology, Northwestern University.

10:25 — Opthalmology — "Hemangiomas of Infancy: Eyelids and Orbit" — John W. Henderson, Mayo Clinic.

Visit Exhibits

10:55 — Surgery — "Surgery of the Spleen" — Robert M. Zollinger, M.D., Professor of Surgery, Ohio State University.

11:20 — Internal Medicine — Subject: To be announced — Reginald Smart, M.D., Clinical Professor of Medicine, University of Southern Calif.

11:45 — Pediatrics — Subject: To be announced — Robert H. Lennox, M.D., Associate Professor of Pediatrics, Tulane University.

Round Table Luncheon Meetings — with discussion of morning papers —

1. Pediatrics, Robert H. Lennox, M.D. Moderator: Hugh C. Thompson, M. D.

2. Medicine, Reginald Smart, M.D. Moderator: Clarence L. Robbins, M.S.

3. Opthalmology, John W. Henderson, M.D. Moderator: Sherwood Burr, M.D.

(The opthalmologists will have a specialty group meeting Friday morning.) Afternoon: Medical movies and golf. Evening: Complimentary cocktail party and president's dinner.

Saturday, Oct. 25, 1958

MORNING SESSION

Presiding: Leo J. Kent, M.D.

9:15 — "Basic Issues in American Education" — Richard C. Harvill, President, University of Arizona.

10:15 — "Subdural Hematomas in the Elderly" — Peter Stuteville, M.D., Neurosurgeon, University of Colorado.

10:15 — Visit exhibits.

11 — Internal Medicine — "Recognition and Treatment of Respiratory Acidosis" — Reginald Smart, M.D., Clinical Professor of Medicine, University of Southern Calif.

11:30 — Opthalmology — "The Cataract Patient in General Practice" — John W. Henderson, M.D., Mayo Clinic.

12 — Pediatrics — "Pulmonary Tuberculosis in Childhood" — Robert H. Lennox, M.D., Associate Professor of Pediatrics, Tulane University.

No scheduled luncheon meeting.

The dermatologists will have a specialty group meeting.

AFTERNOON

Golf, Tucson Country Club

EVENING

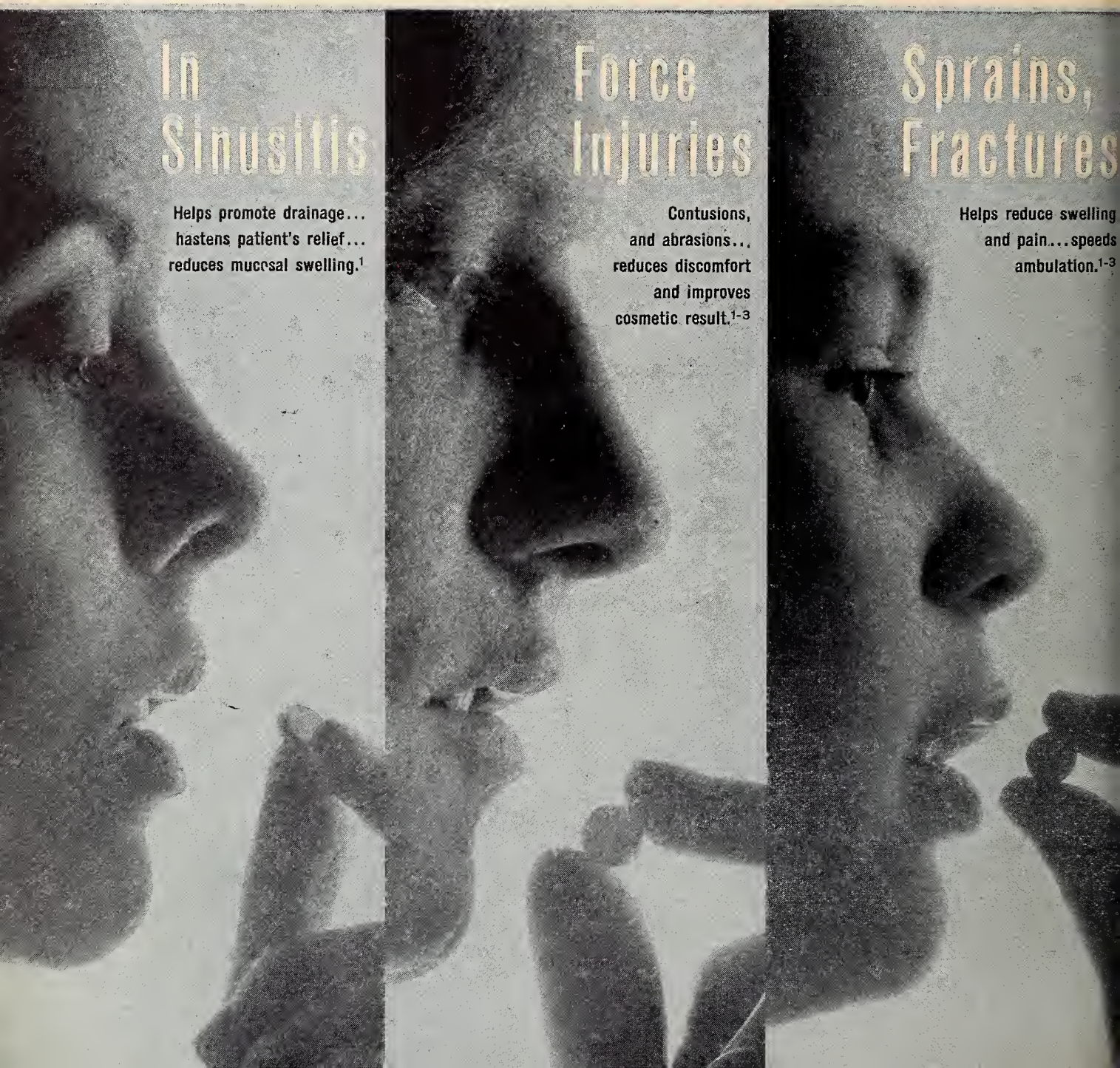
University of Arizona vs. University of Idaho football game.

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References: 1. Innerfield, I.; Shub, H., and Boyd, L. J.: New England J. Med. 258: 1069 (May 24) 1958. 2. Miller, J. M.; Godfrey, G. C.; Ginsberg, M. J., and Papastrat, C. J.: J. A. M. A. 166:478 (Feb. 1) 1958. 3. Davidson, E; Prigot, A., and Maynard, A. de L.: Harlem Hosp. Bull. II: 1 (June) 1958 *Reg. U. S. Pat. Off.



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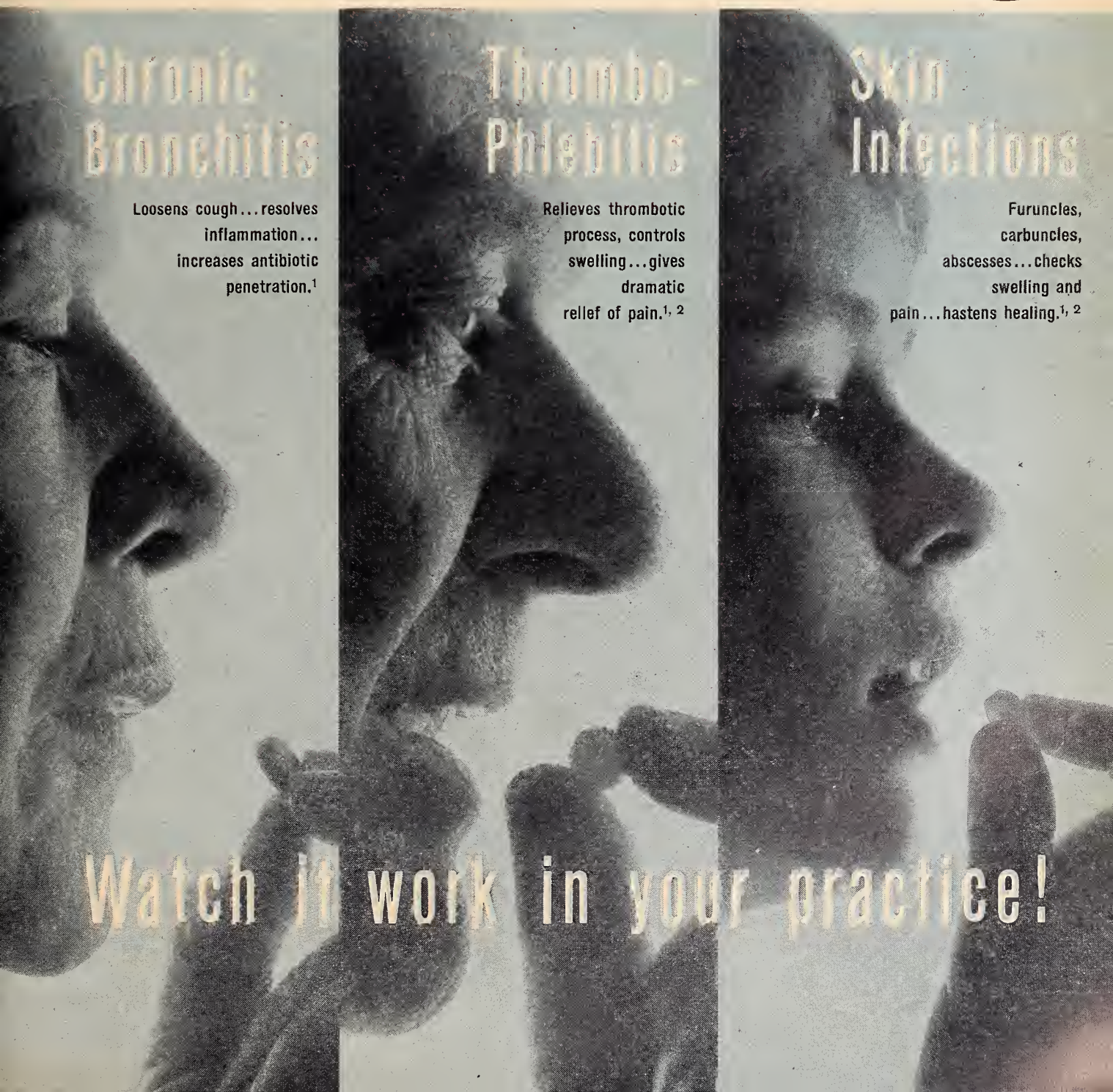
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THE MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

THERE have been direct and indirect reports from Guadalajara on the forthcoming meeting of the Medical Society of the United States and Mexico this coming November, on the 6th, 7th and 8th. Unfortunately, a circular letter announcement to the membership expected from below the border momentarily has not yet been received by press time, although it will probably be in your hands by the time you read this.

Mr. Byron Browder, our avant garde and liaison man in Guadalajara, informs us that a fabulous program is in preparation by the Mexican contingent under the direction and inspiration of Dr. I. Chavez. There will be a substantial and varied scientific program with participants from both countries about equally divided. Lavish entertainment is being planned, sightseeing, etc. A special train or railroad car will be provided by the Mexican Southern Pacific from Nogales for this meeting. A preliminary canvassing of American members by the undersigned, showed that a surprisingly large number plan to attend, the greatest proportion signifying their intention to take advantage of the train.

Efforts are being made to take the Tucson Doctors' Orchestra to Guadalajara.

Those interested in joining the society are requested to communicate their wishes to the Mexican treasurer, Dr. Roberto Morfin, Alvarez, Olas Altas 73, Sur, Mazatlan, Sinaloa, Mexico so that he may bill you and place you in the membership and mailing roster.

We anticipate that details concerning reservations for travel and lodging will be contained in the expected circular mentioned above.

JUAN E. FONSECA, M.D.,
Secretary

LA SOCIEDAD MEDICA DE ESTADOS UNIDOS DE NORTEAMERICA Y MEXICO

SE HAN recibido por estas latitudes, informes directos e indirectos procedentes de Guadalajara, tocante a la reunión anual de la Sociedad Medica de Estados Unidos de Norteamérica y México, verificativa del 6 al 9 de noviembre próximo. Lamentamos que a la hora del cierre de esta impresión, no ha llegado a nuestro poder todavia la circular que han de recibir de un día a otro todos los miembros, informándoseles con mas detalles sobre el programa, transporte, etc. Sin embargo, es muy posible que cuando llegue a Ude. este número, ya habran recibido la tal circular.

El Sr. Byron Browder, nuestro representante de vanguardia en Guadalajara, nos remite entusiásticos comentarios sobre los fabulosos preparativos que están llevando a cabo nuestros anfitriones en Jalisco bajo la tutela e inspiración del Dr. Ignacio Chavez. Se nos promete un programa científico de envergadura, con representantes de ambos países compartiendo las faenas oratóricas aproximadamente a partes iguales. Entretenimiento a granel, confeccionado con la espléndida generosidad de rigor entre los jalisenses, nos espera. Se proyecta, por parte del Ferrocarril del Sud Pacifico, la organización de un tren especial, o, por lo menos, de un carro exclusivo para los asistentes a la convención, que partirá de Nogales. Un cuestionario preliminar que distribuyó el que suscribe hace poco, reveló que el número de socios y acompañantes que tienen intención de asistir, llega a número crecido; se cuenta, en especial, una gran proporción de adictos al tren.

Se están haciendo esfuerzos por consequir que asista a la Convención la Arquesta de Médicos de Tucson.

Se recuerda a aquellos que deseen solicitar pertenencia a la Sociedad, que deben comunicarse con el tesorero mexicano: Dr. Roberto Morfin Alvarez, Olas Altas 73, Sur, Mazatlán, Sin., Mex. para que éste pueda pasarle la cuenta para la cuota anual e integrar su nombre a la lista de asociados, de manera que pueda estar al recibo da la correspondencia.

JUAN E. FONSECA, M.D.
Secretario en EE.UU.
2409 E. Adams
Tucson, Ariz.

AMERICAN CANCER SOCIETY ARIZONA DIVISION

Tentative Program
for
The Seventh Annual Cancer Seminar
Jan. 22, 23 and 24, 1959 — Paradise Inn, Phoenix

SEMINAR COMMITTEE

Edward H. Bregman, M.D.
James D. Barger, M.D.
Robert B. Leonard, M.D.

Thursday

9 a.m. — Opening.

9:15 a.m. — "Anemia of Malignant Diseases" — Dr. Alfred Gellhorn.

10 a.m. — "Relation of Viruses to Cancer" — Dr. Wendell M. Stanley.

11:15 a.m. — "Recent Advances in Diagnosis and Treatment of Carcinoma of the Cervix" — Dr. Howard Hunt, and Dr. Alexander Brunschwig.

12:30 p.m. — Lunch.

2:30?4:30 p.m. — "Tumors of Central Nervous System" — Dr. James W. Kernohan, Dr. Phillip Hodes, and Dr. Edwin B. Boldrey.

Friday

9 a.m. — Rol Laughner Memorial Lecture — "Treatment of Malignant Disease in the U.S.S.R." — Dr. Alexander Brunschwig.

10 a.m. — "A New Method for Diagnosis of Solitary Lesions of the Lung" — Dr. L. H. Garland.

1:30 a.m. — "Carcinoma of the Lung" — Dr. Richard Overholt, and Dr. W. A. D. Anderson.

12 noon — Annual report — American Cancer Society.

2-4:30 p.m. — Clinical and pathological diagnostic problems — All participants.

Saturday

9 a.m. — "Review of Chemotherapeutic Agents" Dr. Alfred Gellhorn.

10 a.m. — "Tumors of the Stomach" — Dr. L. H. Garland, Dr. Alexander Brunschwig, and Dr. W. A. D. Anderson.

Saturday afternoon

Nurses' seminar.

THE SOUTHWESTERN SURGICAL CONGRESS

THE 11th annual meeting of the Southwestern Surgical Congress will be held in the Brown Palace Hotel, Denver, Colo., March 30-31, April 1-2, 1959.

THE ARIZONA MEDICAL ASSOCIATION, INC.

THE 68th Annual Meeting of the Arizona Medical Association will be held at the San Marcos Hotel in Chandler, Ariz. on April 28, 29, 30, May 1 and 2, 1959.

TENTATIVE PROGRAM ARRANGEMENTS

Tuesday (April 28)

1 p.m. — Council meeting.

Wednesday (April 29)

9 a.m. — House of delegates — special meeting.

2 p.m. — Blue Shield annual corporation meeting.

6:30 p.m. — Reception — Social hour.

7:30 p.m. — Buffet supper

Thursday (April 30)

8 a.m. — House of delegates — first regular meeting.

9:30 a.m. — General session.

10 a.m. — Scientific session.

2:30 p.m. — Scientific session — Roundtable — Surgical symposium.

6:30 p.m. — Reception — Social hour.

Friday (May 1)

7:30 a.m. — Breakfast (Medical Education Day)

9 a.m. — Medical education program (morning session)

2:30 p.m. — Medical education program (afternoon session)

6 p.m. — Reception — Social hour.

7:45 p.m. — President's dinner-dance.

Saturday (May 2)

8 a.m. — House of delegates — second regular meeting.

10 a.m. — Scientific session.

1 p.m. — Golf tournament — annual handicap.

2:30 p.m. — Scientific session — Roundtable symposium.

It was the consensus of opinion that the only possible way to develop interest among the profession and thereby attract a worthwhile attendance during the annual meeting, restoring an increasing registration which has been diminishing during the past several meetings, is to develop an outstanding scientific program with prominent guest orators participating.

Council has already directed that one full day of the annual meeting be devoted to medical education. Subject to acceptance by the selected participants, it was determined to invite the following:

John W. Cline, M.D. — Past president of AMA, current member of its council on medical education and hospitals, and Associate Clinical Professor of Surgery at Stanford, to serve as moderator.

Thomas B. Turner, M.D., Dean, John Hopkins University, School of Medicine.

Vernon W. Lippard, M.D. — Dean, Yale University School of Medicine.

Roscoe L. Pullen, M.D. — Dean, University of Missouri School of Medicine.

John Z. Bowers, M.D. — Dean, University of Wisconsin Medical School.

Reuben Gilbert Gustavason — President, Resources for the Future, Inc.

Walter L. Hard, Ph.D. — Dean, University of South Dakota.

Marvin E. Johnson, M.D. — Assistant Professor of Surgery, University of Colorado School of Medicine.

Fred Dow Fagg Jr. — President-elect, Western Interstate Commission for Higher Education.

Thomas L. Royce, M.D. — Clinical Assistant Professor in Ophthalmology, Baylor University School of Medicine.

Those who will be invited to participate in the scientific section program for Thursday and Saturday will be:

Haddon Carryer, M.D. — Clinical Section, Mayo Clinic, Rochester, Minn.

Harold Dalton Jenkins, M.D. — Assistant Professor of Medicine, University of Colorado Medical Center.

Henry H. Kessler, M.D., Ph.D. — Kessler Institute for Rehabilitation, Newark, N. J.

Doctors Cline, Johnson and Royce will also participate in the symposiums. Other participants will be announced as may seem indicated.

Specialty Group Luncheon Meetings

With the exceedingly heavy program outlined, together with the possibility that only one noonday might be available to hold specialty group luncheon meetings, and taking into account the limited space therefor which would necessitate the difficult choosing of no more than four of these groups to be accommodated, it was unanimously determined that such luncheon meetings would be dispensed with in 1959. In substitution therefore, two symposiums will be scheduled, one for Thursday afternoon (April 30) and the other for Saturday afternoon (May 2). It is the hope that selected participants will, to the fullest extent possible, cover the interests of these groups.

LESLIE B. SMITH, M.D.

AMERICAN RHINOLOGIC SOCIETY TO HOLD ANNUAL MEETING

THE AMERICAN Rhinologic Society will hold its fourth annual meeting in the Palmer House, Chicago, Oct. 17-18.

Among the topics to be discussed will be pulmonary and nasal physiology, laboratory and clinical aspects of bone transplants, hump removal, roof repair, and nasal process corrections.

The preliminary program includes the following papers:

"Maxillary and Premaxillary Approach to Septal Surgery," Dr. Ralph H. Riggs, Shreveport, La.

"Olfactory Factors in Experimental Neurosis in Animals," Dr. Jules H. Masserman, Chicago.

"Second Golden Decade of Rhinologic Surgery — The Advances of the Past 10 Years," Dr. Harvey C. Gunderson, Toledo.

"Physiology of Respiration," Dr. David Cugell, Chicago.

"Concepts of Nasal Physiology as Related to Corrective Nasal Surgery," Dr. Maurice H. Cottle, Chicago.

"Bone Transplants; Experimental and Clinical Aspects," Dr. Robert Ray, Chicago.

"Nasal Physiology," Dr. Irving Cramer, Cleveland.

"Hump Removal, Roof Repair, Nasal Process Corrections" will be the subject of a panel. Dr. Walter Loch of Baltimore will be the moderator. The participants will be Drs. Lewis Morrison of Indianapolis, Richard Hadley of Rye, N. Y.; Charles Tucker of Hartford and Joseph West of St. Louis.

The profession is cordially invited to attend as guests. There will be no registration fee.

For further information, write to Dr. Robert M. Hansen, secretary of the society, 1735 N. Wheeler Ave., Portland 17, Ore.

INTERNATIONAL COLLEGE OF SURGEONS POSTGRADUATE COURSE, OCT. 13-25

ANOTHER postgraduate course in surgery will be presented by the United States section of the International College of Surgeons in conjunction with the Cook County Graduate School of Medicine, Chicago, Oct. 13-25.

The course, to be conducted under the supervision of the attending staff of the Cook County Hospital, Chicago, will include illustrated lectures motion pictures, anatomy demonstrations, operative clinics and practice surgery by the participants on anesthetized dogs.

Consideration will be given to an intensive review of the basic sciences in relation to clinical surgery as well as to surgical technique, surgical complications and management of the surgical patient. In addition to 20 hours of surgical antomy on the cadaver, the program will include lectures and demonstrations on the following:

Gastric surgery
Physiology
Use of blood and derivatives
Pediatric surgery
Surgery of large bowel
Surgery of small bowel
Intestinal obstruction
Anorectal surgery
Surgery of pancreas and spleen
Gallbladder surgery
Thoracic emergencies
Cardiac arrest
Hand injuries and infections
Gynecologic surgery
Surgery of hernia
Abdominal injuries
Surgery of the esophagus
Thyroid surgery

Additional information may be obtained from the International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, or Cook County Graduate School of Medicine, 707 S. Wood St., Chicago 12.

ICS TO PRESENT AROUND-THE-WORLD REFRESHER CLINIC TOUR

THE INTERNATIONAL College of Surgeons will hold its fourth Around-the-World Postgraduate Clinic and Lecture Tour, beginning with departure from San Francisco on Oct. 10. The return to New York will be on Dec. 3.

The itinerary has been carefully planned and, in addition to offering a unique and extremely interesting journey, will afford an opportunity to attend specially arranged surgical clinics and demonstrations in most of the important cities to be visited.

Sections of the College in Hawaii, Japan, Hong Kong, the Philippines, Thailand, India, Egypt, Turkey, Greece, Italy and Spain will be hosts to the visiting surgeons at their clinics and hospitals.

Further information may be had by writing to Dr. Arnold S. Jackson, tour co-ordinator, 16 S. Henry St., Madison 3, Wis., or to the International Travel Service, Inc., 119 S. State St., Chicago 3.

PG COURSE IN OBSTETRICS

THE Woman's Hospital in New York City is offering two courses in obstetrics, limited to general practitioners. Each course is approved for 30 hours Category I credit by the American Academy of General Practice.

The courses are entitled, "Ante-partum Care" and "The Conduct of Labor and Delivery." They will be given from Oct. 16-30, 1958.

These are full time courses running for a week each. Students will be expected to work in the clinics, and in the second course they will be assigned to patients in labor whom they will assist at delivery. Either one or both courses may be elected.

Physicians interested in this post-graduate instruction will please address Mr. Carl P. Wright Jr., Woman's Hospital, 141 West 109th St., New York 25, N. Y., and an application blank and prospectus will be forwarded.

ANNOUNCEMENT FOUR POSTGRADUATE MEDICAL SEMINAR-CRUISES

The cost of attending any of these seminars is a deductible expense when computing income taxes. For information as to deductibility for

income tax purposes of the expenses of professional postgraduate education, see Journal of American Medical Association, of July 28, 1956 *page* 1260 *also* 1956 *edition, Physicians Income Tax Guide page* 21.

FIRST:

(West Indies-South America)

OHIO STATE UNIVERSITY COLLEGE OF MEDICINE

Nov. 11, 1958, *sail from Wilmington, N. C. by the M/S Stockholm,* 15 *days* — $325 *up. Visiting Havana, San Blas Islands, Cristobal, Curacao, La Guaira, St. Thomas, and San Juan (with opportunity to visit choice of Merida, Guatemala, Bogota or Lima).*

FACULTY:

Charles A. Doan, M.D., Dean and Professor, Department of Medicine; Emmerich von Haam, M.D., Professor and Chairman, Department of Surgery; George J. Hamwi, M.D., Associate Professor, Department of Medicine; Thomas E. Shaffer, M.D., Professor, Department of Pediatrics; Joseph M. Ryan, M.D., Associate Professor, Department of Medicine; Kenneth H. Abbott, M.D., Clinical Assistant Professor, Department of Surgery; and N. Paul Hudson, M.D., Assistant Dean, Postgraduate Medical Education and program chairman.

SECOND:

(West Indies)

KENTUCKY ACADEMY OF GENERAL PRACTICE with a faculty from THE UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

FACULTY:

Walter S. Coe, M.D., Associate Professor of Medicine and Dean of the Medical Seminar Cruise Faculty; Harry S. Andrews, M.D., Associate Professor of Pediatrics; J. Ray Bryant, M.D., Cardio-Thoracic Surgeon; Ralph M. Denham, M.D., Clinical Instructor in Medicine; J. Herman Mahaffey, M.D., Instructor, Department of Surgery; Robert F. Monroe, M.D., Associate Clinical Professor of Obstetrics and Gynecology; and Carroll L. Witten, M.D., Clinical Instructor in Medicine and registrar and director of the seminar cruise.

THIRD:

NEW YORK UNIVERSITY COLLEGE OF MEDICINE

Feb. 21, 1959, *sail from New York by the M/S Italia. Air-conditioned*—14 *days* $340 *up. Visiting San Juan, St. Thomas, Ciudad Trujillo and Nassau.*

FACULTY:

William N. Hubbard Jr., M.D., Associate Dean and Assistant Professor of Medicine; William E. Studdiford, M.D., Professor Emeritus, Obstetrics and Gynecology; S. Bernard Wortis, M.D., Professor and Chairman, Department Psychiatry and Neurology; John H. Mulholland Jr., M.D., Professor and Chairman, Department of Surgery; Robert S. Hotchkiss, M.D., Professor and Chairman, Department Urology; Clarence E. de la Chapelle, M.D., Profesosr of Medicine; William Goldring, M.D., Associate Professor of Medicine; and Saul Krugman, M.D., Associate Professor of Pediatrics.

FOURTH:

(Europe)

DUKE UNIVERSITY SCHOOL OF MEDICINE FOURTH SEMINAR CRUISE

Jan. 14, 1959, *sail from New York by the M/V Saturnia,* 24 *days, anticipated fare,* $1,084 *up. (Definite fares will appear in printed literature) Visiting Tangier, Gibraltar, Palma, Palermo, Naples, Rome, Florence, Italian Riviera and Nice.*

FACULTY:

Wilburt Cornell Davison, M.D., James B. Duke, Professor of Pediatrics and Dean; William M. Nicholson, M.D., Professor of Medicine and director of post-graduate education; W. Banks Anderson, M.D., Professor of Ophthalmology; Guy L. Odom, M.D., Professor of Neurosurgery; and Julian M. Ruffin, M.D., Professor of Medicine.

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2. Kentucky Academy to the West Indies ☐
3. NYU College of Medicine to the Caribbean ☐
4. Duke University to Europe ☐

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AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS

THE SECOND ANNUAL meeting of the American Association of Medical Assistants will take place Oct. 31, Nov. 1 and 2, 1958, at the Palmer House, Chicago, Ill. All medical assistants are cordially invited to attend. We urge each physician to call this meeting to the attention of his assistant.

PROGRAM

Friday, Oct. 31:

8-10 a .m. — Registration.

8-9 a.m. — House of delegates meeting.

9-11 a.m. — General business session.

(Welcome by Dr. F. J. L. Blasingame, executive vice president of the American Medical Association)

11-12 noon — Advisors' symposium.

Leo J. Starry, M.D., moderator.

"The Value of This Association to Doctors" — Fred Sternagel, M.D.

"Office Assistants and Blue Shield" — Robert L. Schaeffer, M.D.

"Professional Ethics" — Frederick H. Falls, M.D.

"Jobs Delegated to Medical Assistants" — Murray C. Eddy, M.D.

2 p.m. — Board buses for AMA building.

2:30-5 p.m. — Tour of AMA building and program in their auditorium.

Speakers, films and exhibits to be furnished by AMA)

6-7 p.m. — Social hour.

7 p.m. — Dinner.

Lucille Swearingen, presiding. Speaker — Morris B. Fishbein, M.D.

Saturday, Nov. 1:

8 a.m. — House of delegates meeting—Election

Three special sections listed under "Business," "Technical," and "Medical." Three rooms will be in use at the same time with a medical assistant manning each one. Girls may choose subjects in which they are especially interested, and go to these rooms. Rooms will be fully equipped with latest office machines, laboratory equipment and office furniture.

ROOM I — BUSINESS

9-9:30 a.m. — Insurance (Daniel C. McKay, the Paulsen Insurance Co.)

9:45-10:15 a.m. — Office machines (Colorado MA presiding.)

10:30-11 a.m. — Credit (Maynard L. Heacox, Medical-Dental Hospital Bureaus of America.)

11:15-11:45 a.m. — Records — Forms (Colwell Publishing Co., etc.)

3:30-4 p.m. — Telephone techniques (Illinois Telephone Co.)

4:15-4:45 p.m. — Banking (Raymond S. Blunt Sr., CPA.)

ROOM II: MEDICAL

9-9:30 a.m. — Emergencies (Missouri MA).

9:45-10:15 a.m. — Medicolegal problems (George Hall, AMA).

10:30-11 a.m. — Case histories — Pertinent Information (Michigan MA.)

11:15-11:45 a.m. — Good housekeeping and personal grooming (Texas MA — 2.)

3:30-4 p.m. — Civil defense and how we can help (Harold Lueth, M.D., FCDA, Medical Consultant, Health Division, Operations Service.)

4:15-4:45 p.m. — Public relations (Jerry Harris, Medical Arts Division of Creditors' Bureau, El Paso, Texas.)

ROOM III — TECHNICAL

9-9:30 a.m. — New Laboratory Procedures (Mr. A. Coldiron and Iowa MA)

9:45-10:15 a.m. — New Developments in X-ray (Robert G. Morris Jr., M.D.)

10:30-11 a.m. — Inner Office Professional Ethics (California MA.)

11:15-11:45 a.m. — ECG, Ultrasonic and Diathermy (Herbert Levinger, A. S. Aloe Co.)

3:30-4 p.m. — Aseptic Techniques (Wisconsin MA.)

4:15-4:45 p.m. — What is Good Practice for the Physician and Medical Assistant? (Raleigh Oldfield, M.D., president, Illinois Medical Society.)

GENERAL SESSION

2-3:20 p.m. — "Go and Do Likewise" — Harold Scherer, business manager, Monroe Clinic, Monroe, Wis.

"Is The Welcome Mat Out?" — I. D. Harvey, divisional sales manager, Abbott Laboratories, North Chicago, Ill.

6-7 p.m. — Social hour and reception.

7 p.m. — Banquet and installation of officers.

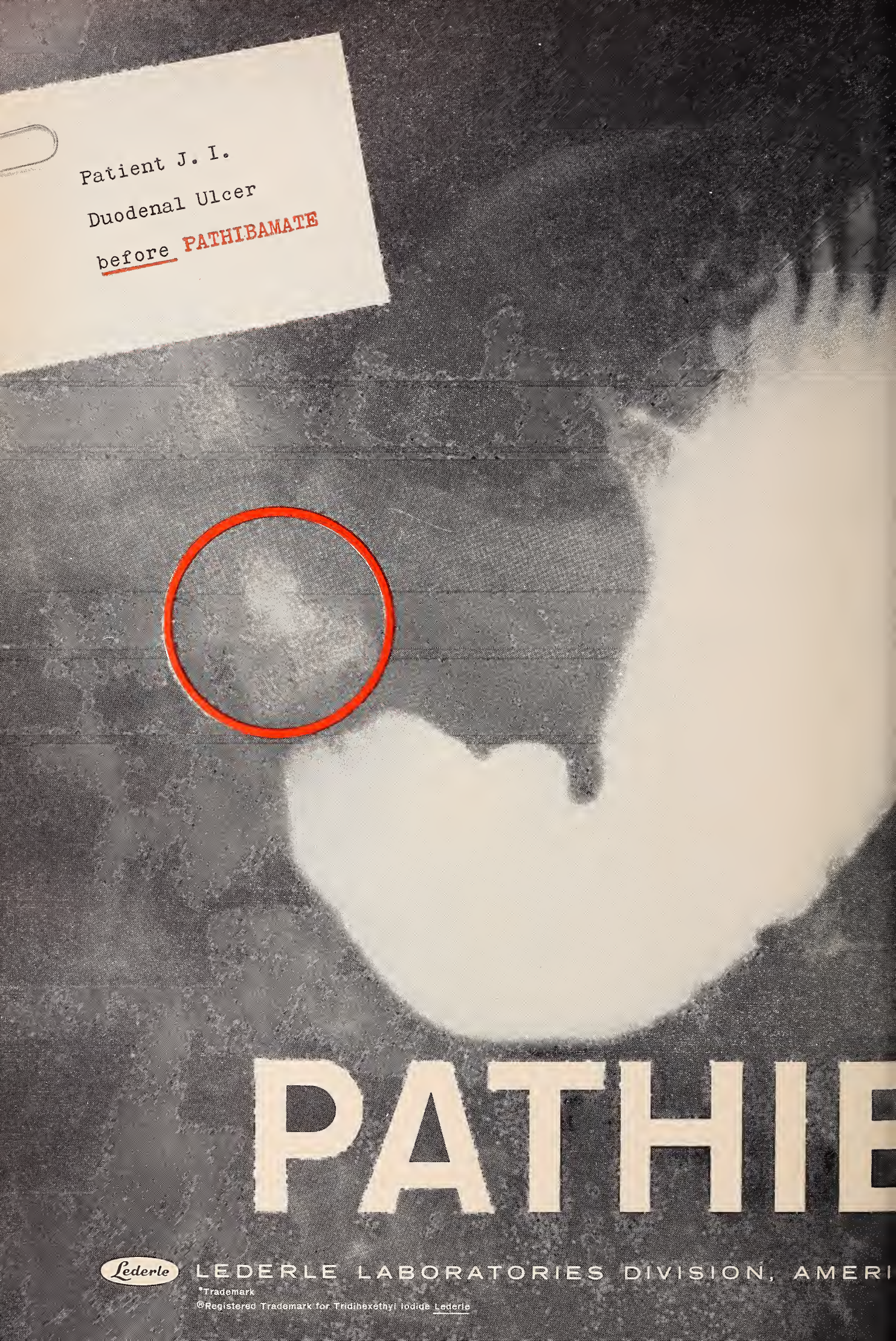
Presiding: Mary Kinn, president, American Association of Medical Assistants.

Master of Ceremonies: Robert J. Samp, M.D., Director of Tumor Clinic, University Hospitals, Madison, Wis.

Sunday, Nov. 2:

10-12 noon — Sunday morning brunch

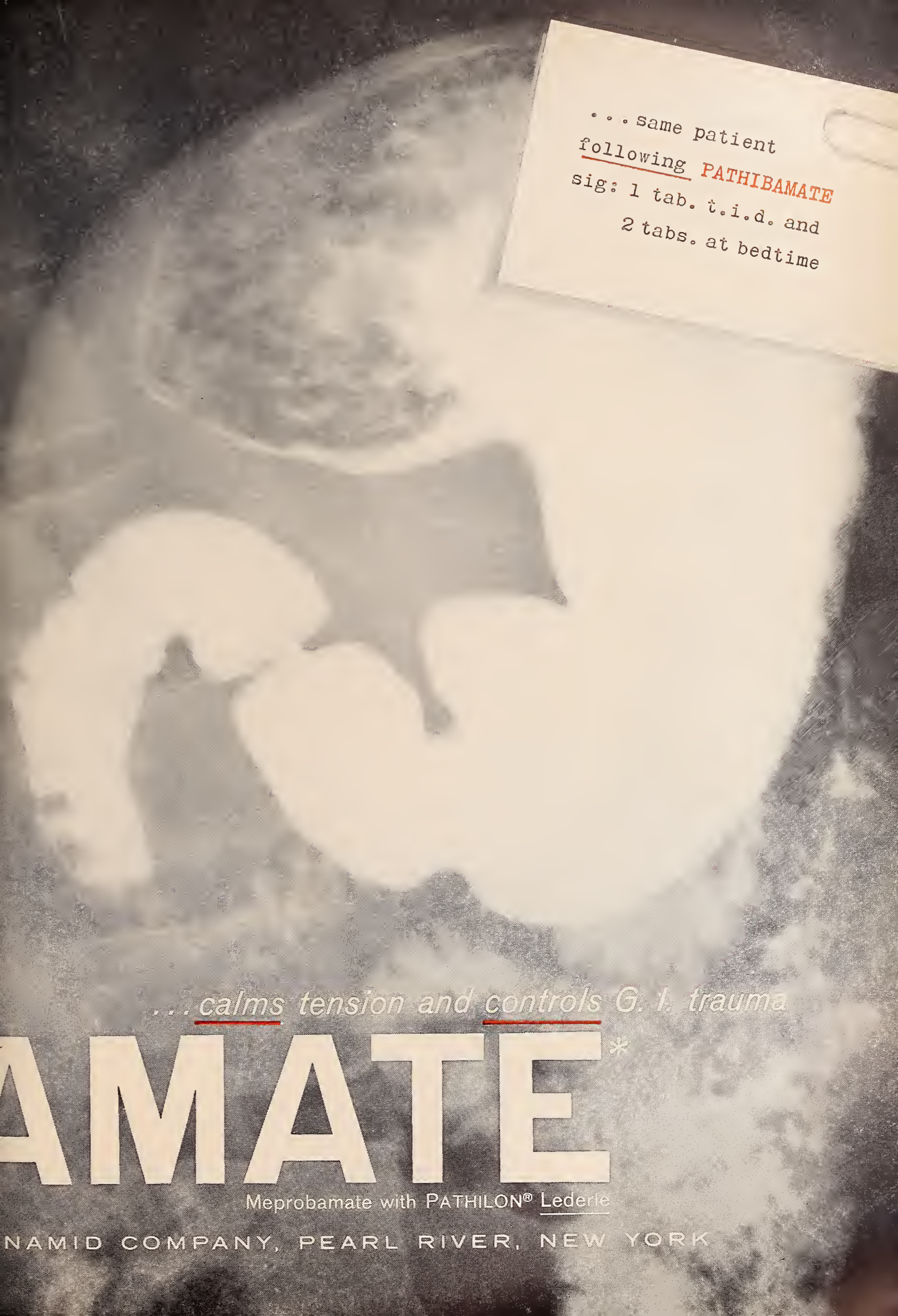
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Rates: Singles — $8 - $16, doubles — $14.50 - $20, twins — $15.50 - $22. No deposit necessary.

Registration fee of $18 includes: Friday: Tour of the American Medical Association building, program in their auditorium, and transportation from and return to hotel.

Friday: Dinner in the Red Lacquer Room.

Saturday: Cocktail party and banquet—Grand Ballroom.

Sunday morning: Brunch.

POSTGRADUATE COURSES

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1958-59

PHYSICIANS:

Ear, Nose and Throat — Oct. 3 and 4, 1958. Orthopedic Surgery — Oct. 30, 31 and Nov. 1, 1958. Psychiatry — Nov. 3, 4, and 5, 1958. Pulmonary disease (Mattson seminar) — May 22 and 23, 1958. The Stomach and bowel — June 25, 26, and 27, 1959.

ASSOCIATED PERSONNEL:

Social workers (emphasis on geriatrics)—Oct. 17 and 18, 1958. Dietitians (emphasis on pediatrics) — Dec. 5 and 6, 1958. Technologists (bacteriology) — Feb. 27 and 28, 1959.

DALLAS SOUTHERN CLINICAL
March 23-25, 1959
Annual spring conference

CALENDAR OF MEETINGS

DATE	MEETINGS	PLACE
Sept.		
29-31	Soc. of Clinical & Exper. Hypnosis	Chicago, Ill.
30 - Oct. 3	American Roentgen Ray Society	Shoreham Hotel, Washington, D.C.
Oct.		
2	Arizona Academy of General Practice	Scottsdale, Arizona
5-10	American College of Surgeons	Chicago, Ill.
9-10	Big 12 Cities Meeting	Biltmore Hotel, N.Y.C.
10 - Dec. 3	International Coll. of Surgs. 3rd Around the World post graduate clinic tour	
13-15	Natl. Rehabilitation Ass'n. Annual Meeting	Ashville, N. C.
20-24	Annual Meeting Amer. Cancer Soc. (Sci. Sess.)	Biltmore Hotel, N.Y.C.
23-25	Southwestern Medical Association	Tucson, Ariz.
23-25	Course in PG Gastroenterology — Amer. Coll. Gastroenterology	Jung Hotel, New Orleans, La.
27-31	American Public Health Association	St. Louis, Mo.
Nov.		
2-8	American Society Clinical Pathologists	Chicago, Ill.
2-8	6th International American Congress Radiology	Lima, Peru
3-8	College American Pathologists	Chicago, Ill.
5-8	Med. Soc. of the U. S. and Mexico	Guadalajara, Mexico
10-13	American Dental Association	Dallas, Texas
17-22	Radiological Society of North America	Chicago, Ill.
18-22	Pan American Dental Congress	Mexico City, Mexico
Dec.		
2-5	American Med. Ass'n. Clinical Meetings	Minneapolis, Minn.

(Continued on Page 710)

Woman's Auxiliary

REPORT OF THE NATIONAL CONVENTION — SAN FRANCISCO

Mrs. Melvin W. Phillips, President

SAN Francisco opened its cosmopolitan heart to embrace some 43,000 persons concerned with the 1958 AMA annual meeting, the 10th such meeting to be held in that city in 90 years. Of that number, 2,146 doctors' wives registered for the 35th annual meeting of the Women's Auxiliary to the AMA with headquarters in the Fairmont Hotel situated atop a frequent hill, cooled by the usual summer breezes, and warmed by the unusually prevailing sunshine which brightened the entire week of June 23. Additional sunshine was provided by the California hostesses who anticipated our comforts, interests and entertainment to frost the convention cake.

In addition to the president, Arizona delegates included Mesdames: Hiram Cochran, president-elect, Tucson; Jesse Hamer, George Enfield, and George McKhann, of Phoenix. The delegates attended round-table discussions covering all phases of the auxiliary program in addition to the three-day general meeting of the house of delegates.

The national president praised the mood of the meeting as the following was accomplished:

1. The constitution and by-laws were completely revised into one set of national by-laws.
2. The incorporation of the Woman's Auxiliary to the AMA was approved.
3. The revised report forms were approved.
4. Chairmen of state advisory committees and state executive secretaries were entertained at an appreciation luncheon honoring them as well as AMA officers and trustees.
5. A retirement plan was approved for employes of the national auxiliary.
6. A 1957-58 total of $126,009.91 was reported contributed to the American Medical Education Foundation.

Changes

By-law changes included substituting 300 for 100 constituent auxiliary members on which to base state representation providing that each state shall be entitled to at least one voting delegate in addition to the president. This change is designed to make the house of delegates a more wieldy group and cuts Arizona's official delegation quota from six to two plus the president. Other changes include terminology: Recruitment is now called "paramedical careers recruitment"; and public relations are now referred to as "community service."

A proposed budget of $76,000 was accepted substantiating the magnitude of this organization. A proposed change in records for treasurers and membership cards was approved by an appraisal committee, and county treasurers should have information by September.

Arizona was named second runner-up in AMEF contributions with $2.38 per capita giving. The highest contribution was $8.98 per capita.

Tense excitement sparked interest at several points including the election of officers as issues were decided by official ballots.

Mrs. Joseph M. Greer was among those honored by an impressive memorial service remembering auxiliary members who died during '57-'58.

Guest speakers included Richard H. McFeely, principal, George School, Bucks County, Pa., who showed a warm approach to the problems of young people and expressed hope for the future through world-wide understanding.

Speakers

Dr. David B. Allman, immediate past-president of the AMA, was introduced by Mrs. Hamer, former national auxiliary president, and spoke of the importance of women understanding the reasons why others outside the profession may think adversely, and urged that techniques of communications be brought to bear in creating good will.

S. I. Hayakawa, Ph.D., educator, lecturer, and writer, presented an outstanding interpretation of "Language as an Influence on Human Behavior," exemplifying psychological theory, transactional psychology, or more commonly called communications.

Dr. Ernest B. Howard, assistant secretary, AMA, presented the AMA Round-up summarizing the doctors' convention and indicating in which matters the auxiliary members will probably be requested to participate. Legislation is among the foremost with the Forand bill still getting priority.

In her inaugural address, Mrs. E. Arthur Underwood stressed truth and principle above all and promoted a year of *action*: AMEF, Communications, Today's Health, individual service and responsibility, others through recruitment, and *now!*

The convention observers' report indicated that members were interested in hearing less from national chairmen and more from state presidents. It was my pleasure to use the allocated two minutes to present a sampling of our state activity and, as your official delegate, represented Arizona with great pride.

———

(Continued from Page 708)

Jan. 1959		
4-7	Southeastern Regional Meeting International Coll. of Surgeons	Miami, Fla.
Feb.		
5-8	American Coll. of Radiology, Annual Meeting	Chicago, Ill.
March		
9-12	AMA 4-day Sectional Meeting	St. Louis, Mo.
16-20	National Health Council Annual Meeting	Chicago, Ill.
30 - Apr. 2	Southwestern Surg. Congress	Denver, Colo.
April		
6-8	American Radium Society	Homestead Hotel, Hot Springs, Va.
6-9	American Academy of General Practice	San Francisco, Calif.
9-12	American Ass'n. for Cancer Research Inc.	Haddon Hall, Atlantic City, N. J.
20-23	American Ass'n. Pathologists & Bacteriologists	Boston, Mass.
20-24	American College of Physicians	Conrad Hilton Hotel, Chicago, Ill.
28 - May 2	Arizona Medical Association	Chandler, Ariz.

DRUGS: Their Nature, Action and Use
by Harry Beckman, M.D. 728 pages. Illustrated. (1958) Saunders. $15.

The director of the Department of Pharmacology, Marquette, grouping his drugs by their action, includes the most important ones, with notations on indications, contraindications, dosages, toxicity, and side effects. The many users of "*Beckman*" will be pleased to find here again the author's lucid and personal writing style.

Stacey's Medical Books, San Francisco, California.

FRACTURES AND RELATED INJURIES
by J. Grant Bonnin, M.D. 710 pages. Illustrated. (1958) Grune & Stratton. $12.75.

An important addition to the many books on fracture is complete and practical for those who want a single volume, and also presents a new perspective for those with several volumes. Numerous admirable illustrations reduce the need for descriptions. The author has cut to the bone both figuratively and literally. The reviewer can do no less: It is good.

Stacey's Medical Books, San Francisco, California.

CLINICAL HEART DISEASE
TEXTBOOK OF VIROLOGY
by A. J. Rhodes, M.D., and C. E. van Rooyen, M.D. 3rd ed. 642 pages. Illustrated. (1958) Williams & Wilkins. $10.

The new edition, over twice the size of the first edition in 1949, has come a long way. Both virology and the authors, Canadian experts, have come into their own during the interval. The book now covers the accepted portions of virology well and in conservative and readable fashion. The authors keep their goal realistically in mind — to provide a graduate text which will also assist physicians who now have diagnostic laboratory services available in many places. Calm, orderly, and current, this book has no present peer.

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Hensing, C. R.	AL 3-6603	819
Johnson, William J.	AL 3-1866	919
Lee, Joseph A.	AL 4-2345	517
Miller, Eugene H. E.	AL 3-4312	702
Orzel, J. W.	AL 3-8529	1020
Pafford, Ernest, Jr.	AL 3-3807	718
Pafford, Ernest M.	AL 3-3807	718
Scott, E. M.	AL 8-4277	1017
Sitkin, Frank L.	AL 4-2345	517
Smith, Franklin R.	AL 4-3257	717
Spillane, L. O.	AL 3-0461	821
Voorhees, Joseph P.	AL 8-3320	802
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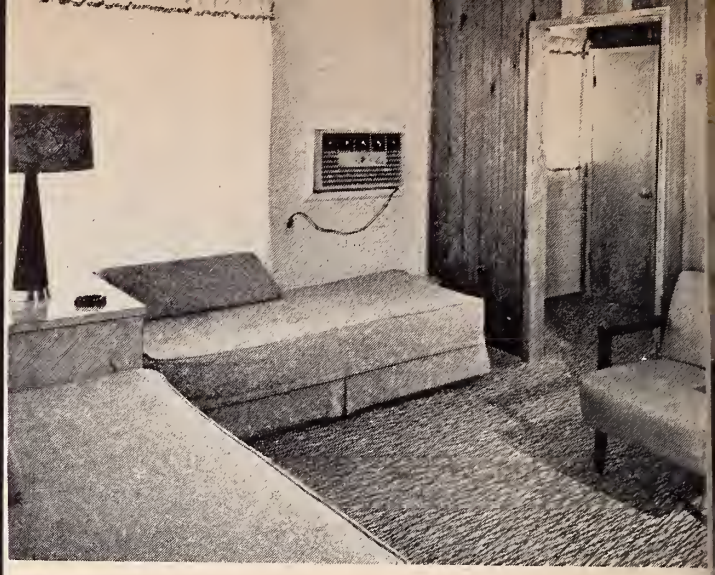
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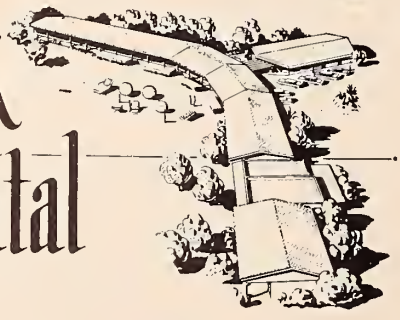


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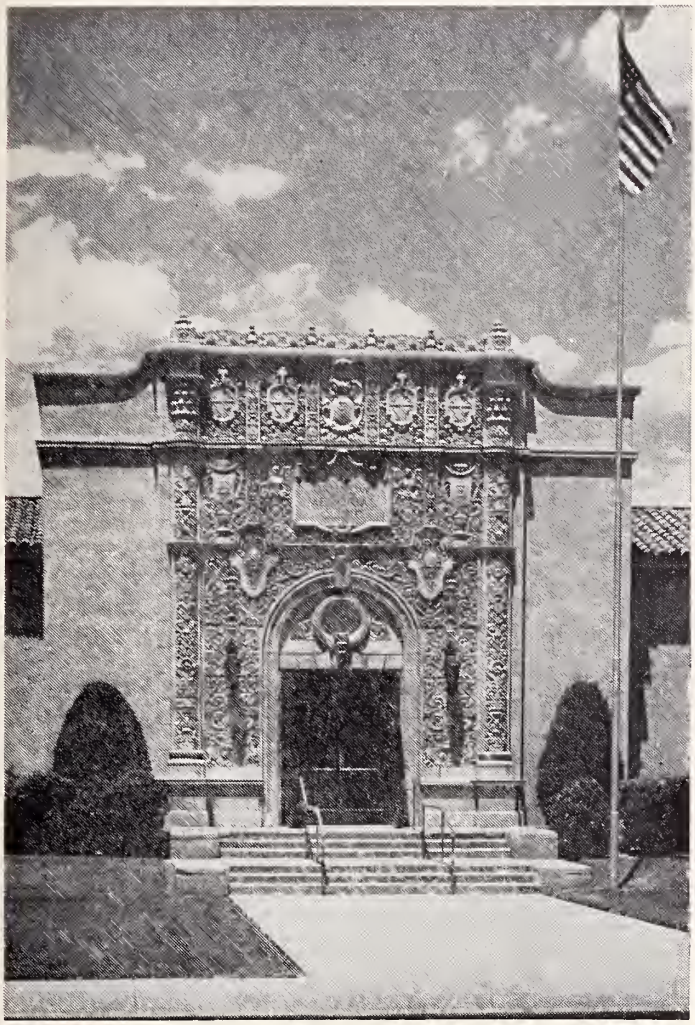
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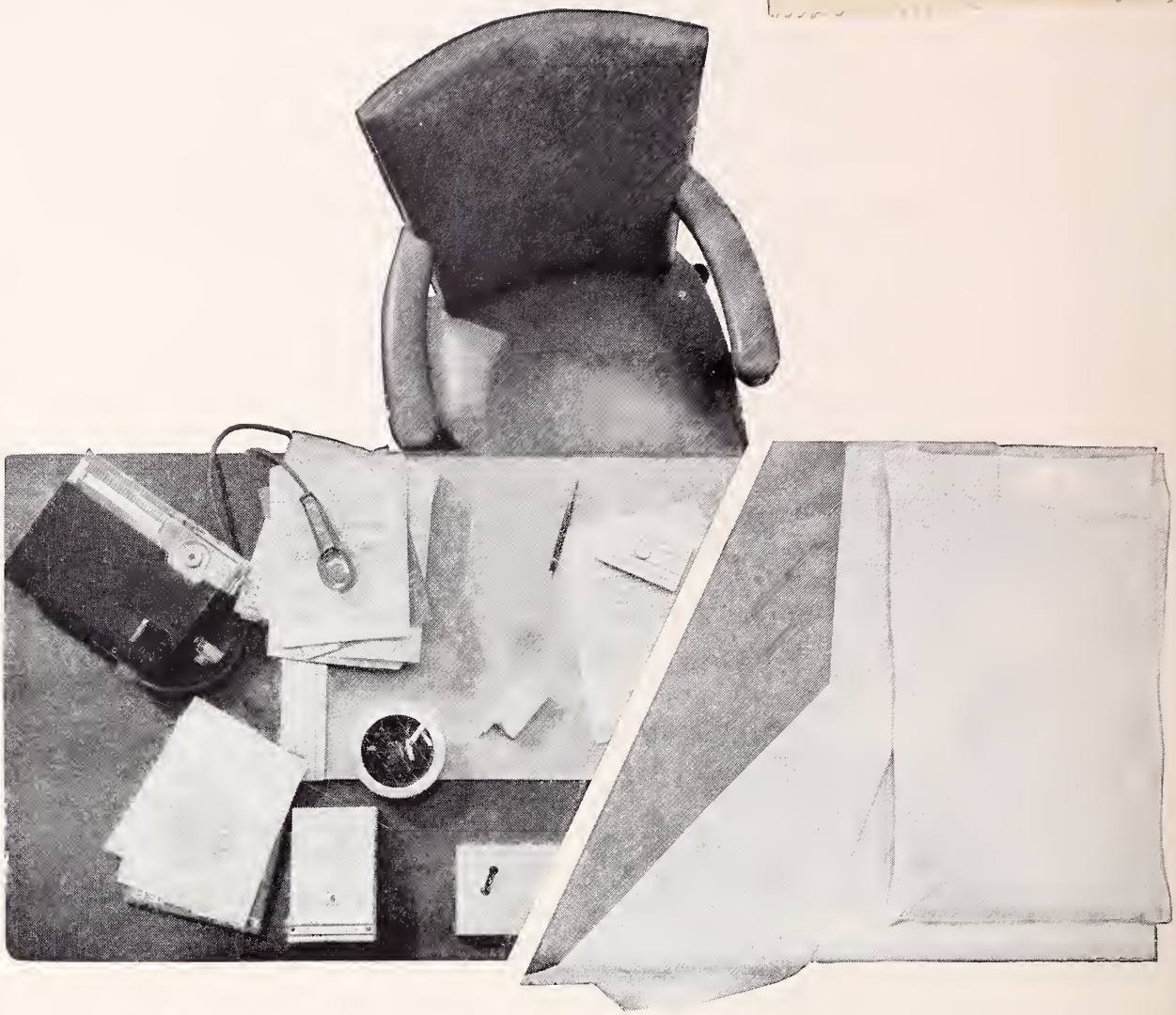
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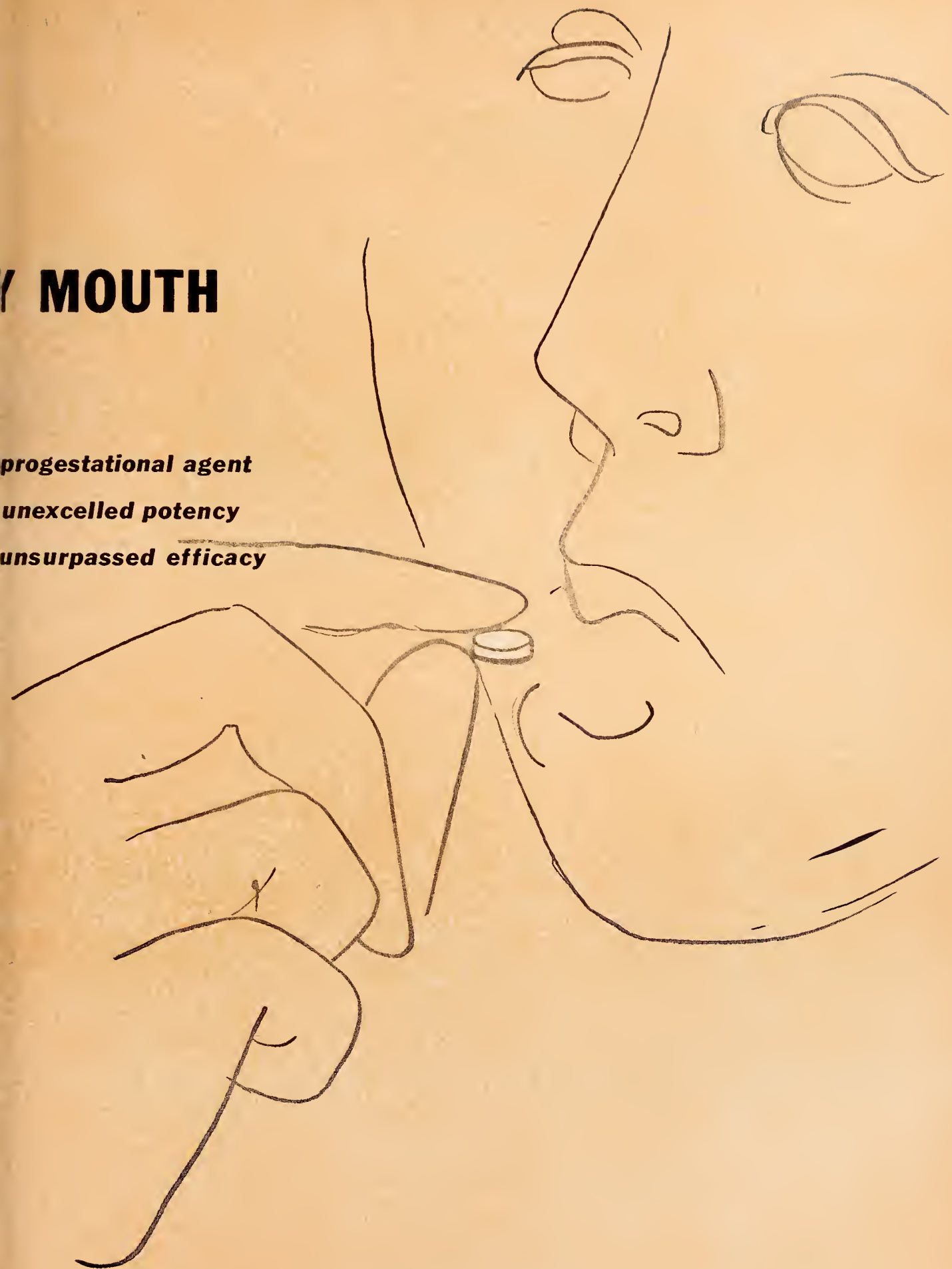
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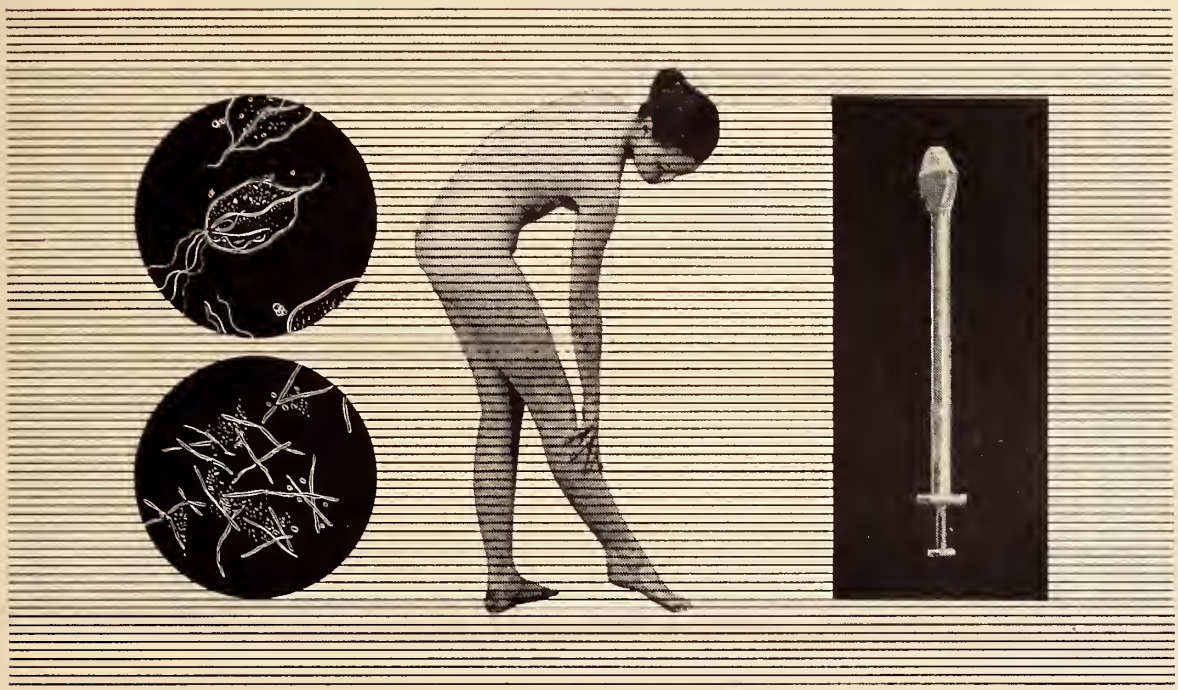


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1. Davis, C. H.: Trichomonas Vaginalis Infections: A Clinical and Experimental Study, J.A.M.A. *157:*126 (Jan. 8) 1955.

2. Pitt, M. B.: Leukorrhea, Causes and Management, J.M.A. Alabama *25:*182 (Feb.) 1956.

3. Lang, W. R.: Recent Advances in Vaginitis, Philadelphia Med. *51:*1494 (June 15) 1956.

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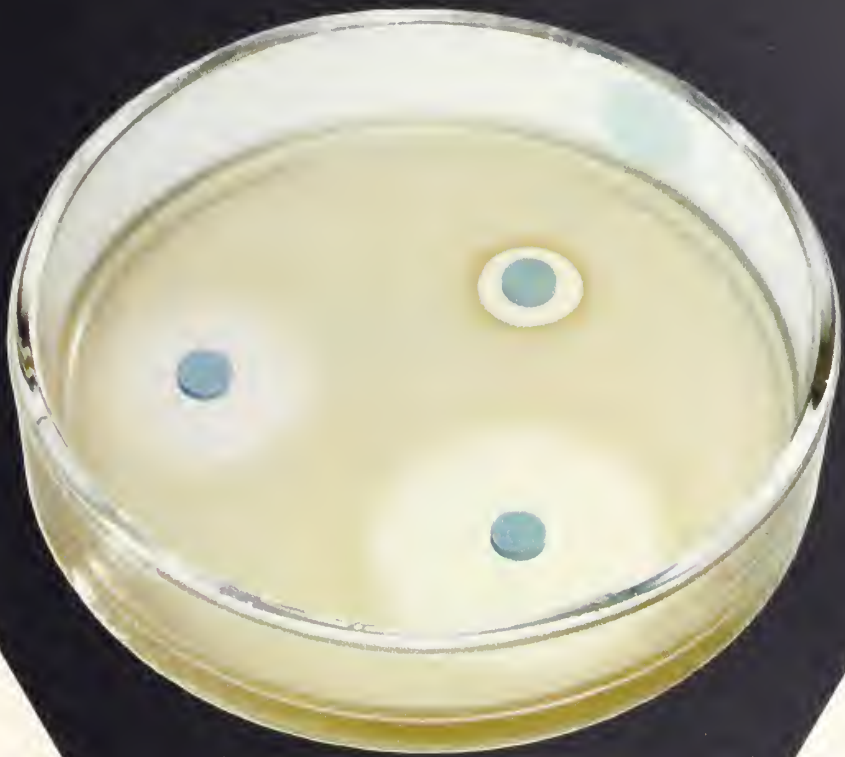
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dosage:

Usual adult dose is 250 mg. every six hours; for severe infections, usual dose is 500 mg. every six hours. Child's dose may be reduced in proportion to body weight.

supplied:

In bottles of 25 and 100 Filmtabs (representing 100 and 250 mg. of ERYTHROCIN activity). Also, in cinnamon-flavored oral suspension; 75-cc. bottles. Each 5-cc. teaspoonful represents 100 mg. of ERYTHROCIN activity.

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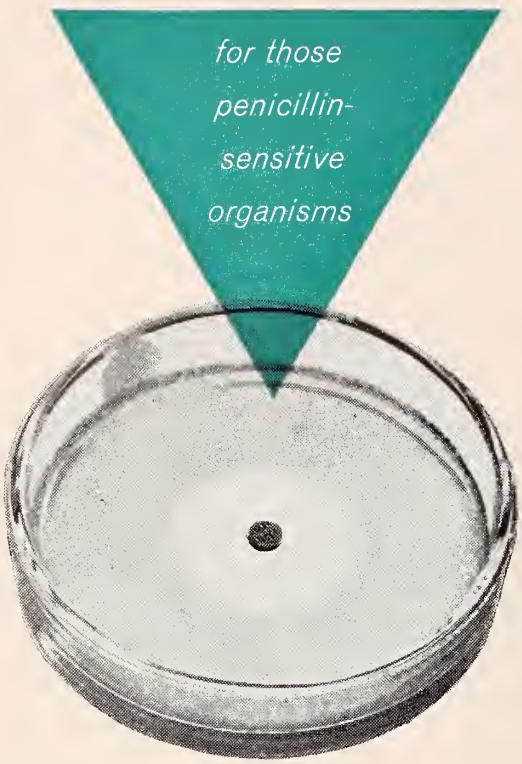
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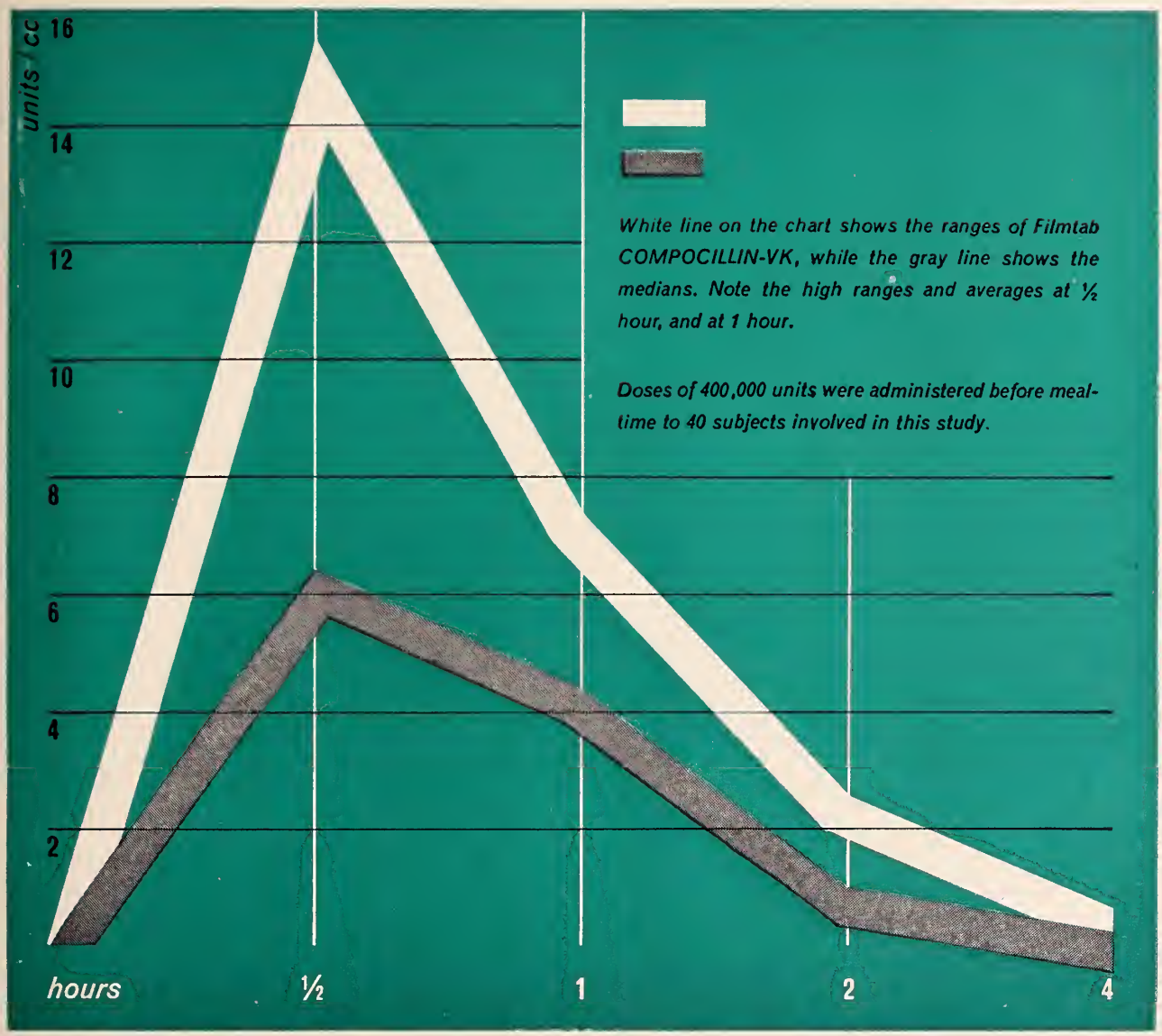
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Compocillin-VK is indicated whenever you desire oral penicillin therapy. In severe infections, oral penicillin should be supplemented by parenteral therapy to obtain the maximum therapeutic response.

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Dosage:

Depending on the severity of the infection, the usual adult dose is 125 to 250 mg. (200,000 to 400,000 units) every four to six hours. For children, dosage may be reduced in proportion to body weight.

Supplied:

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dosage:

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provides successful short-term therapy

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1. Antibiotics Annual, 1956-'57, p. 706.
2. Antibiotics Annual, 1957-'58, p. 180-7.



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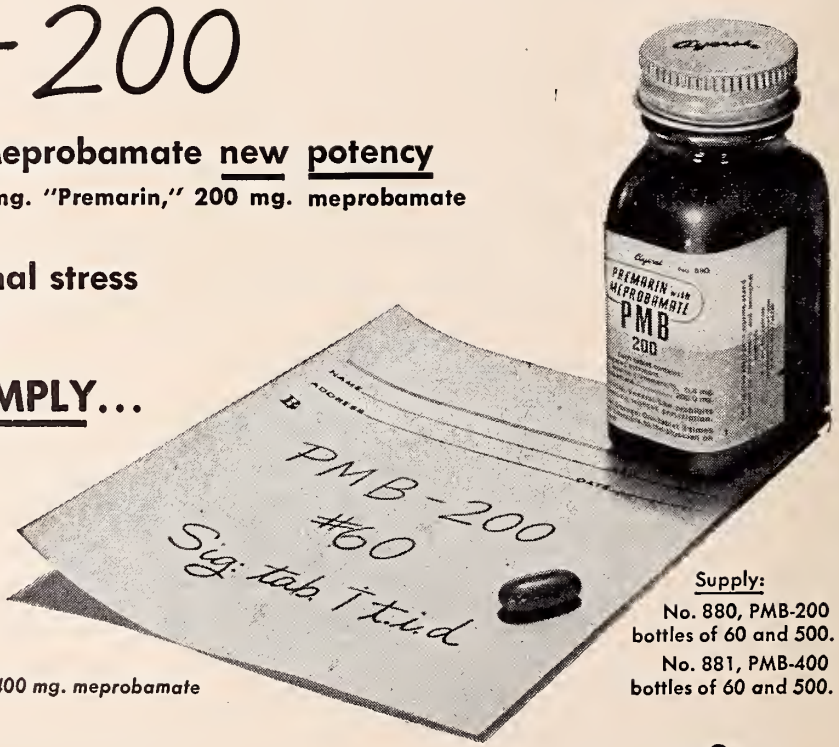
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...the superior decongestant and antihistaminic action of Triaminic

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TRIAMINIC®	50 mg.
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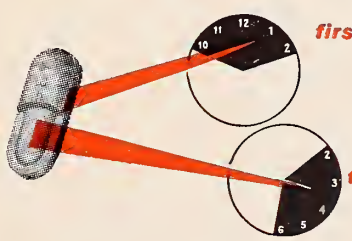
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To reduce upper respiratory congestion and irritating secretions.

For non-narcotic control of the cough reflex.

To augment demulcent respiratory secretions.

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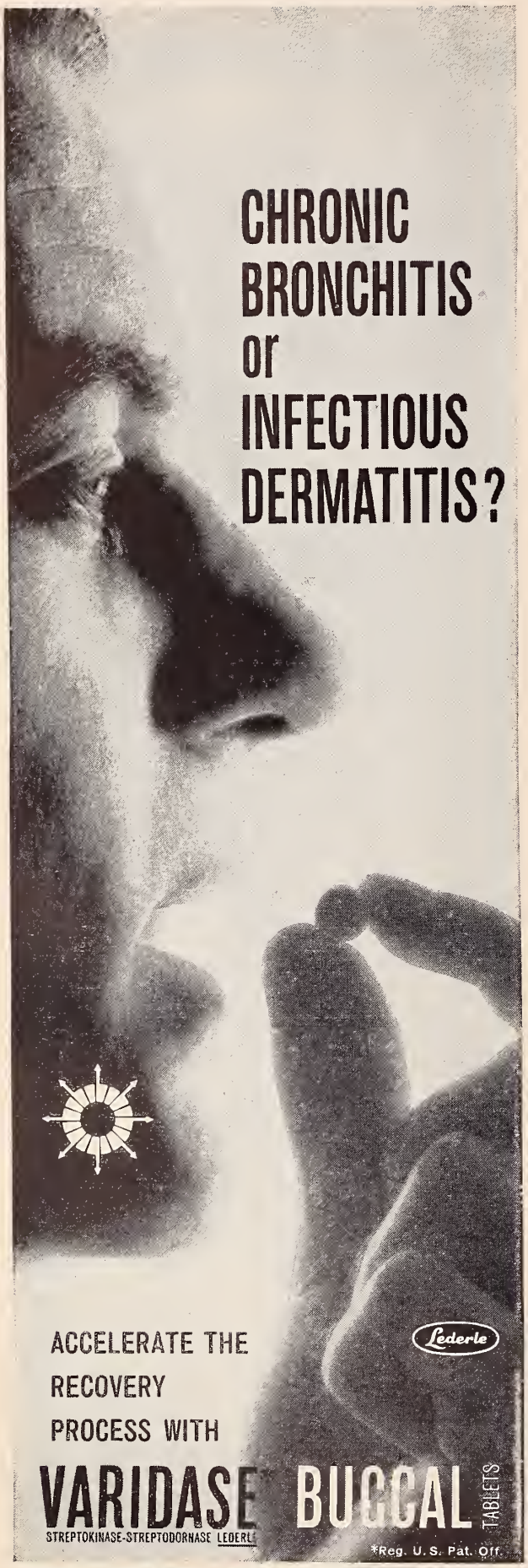
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make cough MORE PRODUCTIVE, LESS DESTRUCTIVE

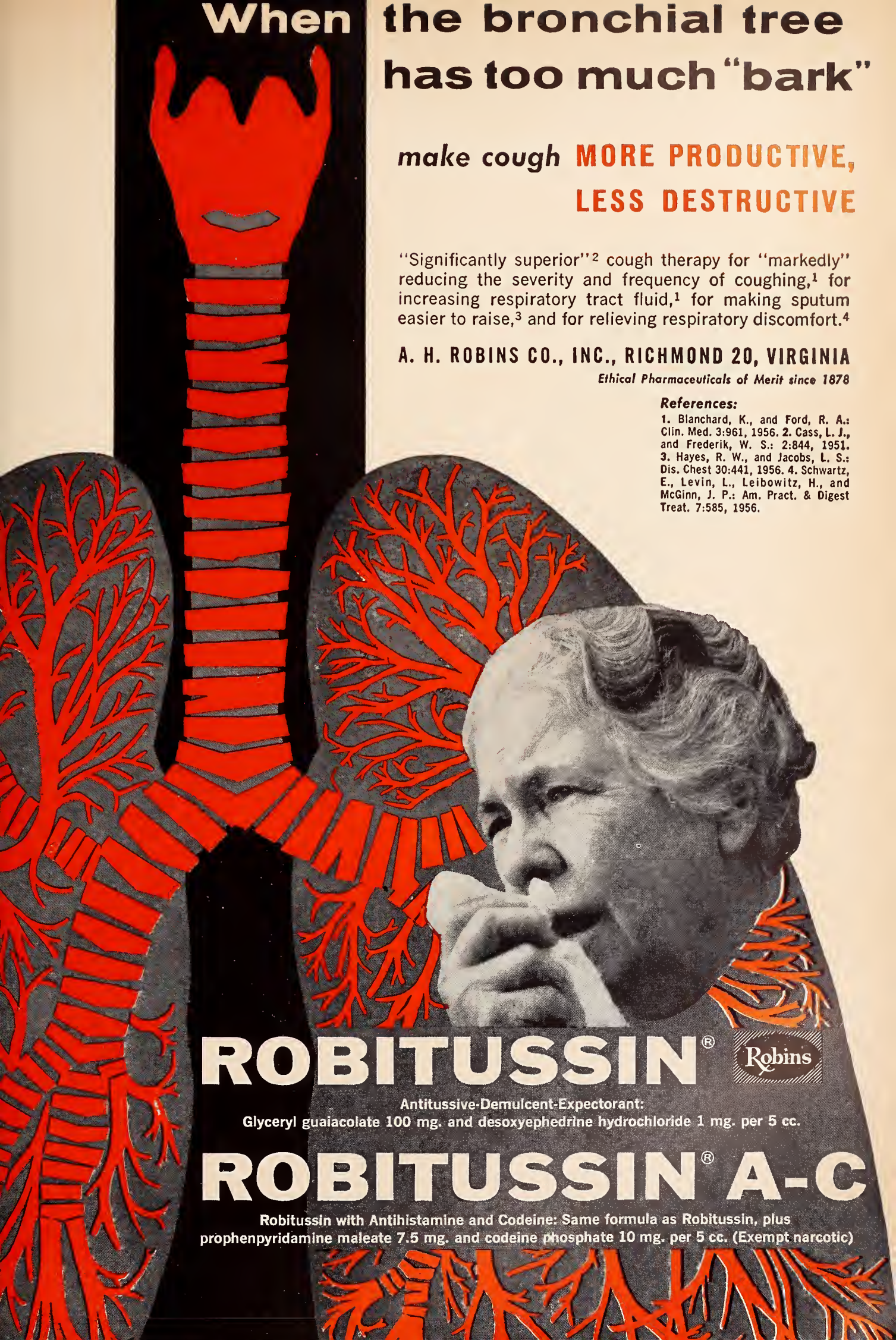
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References:

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- debilitated
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- diabetics
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- those on corticoids
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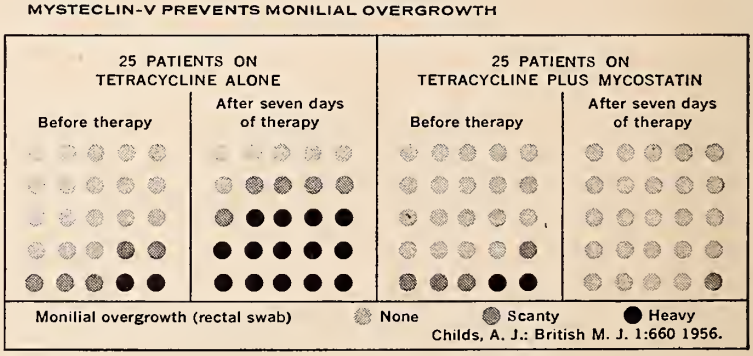
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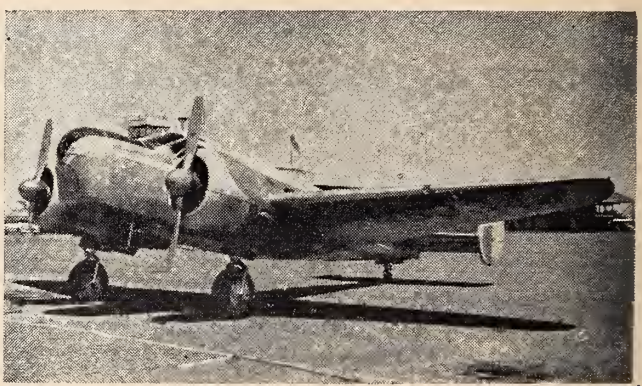
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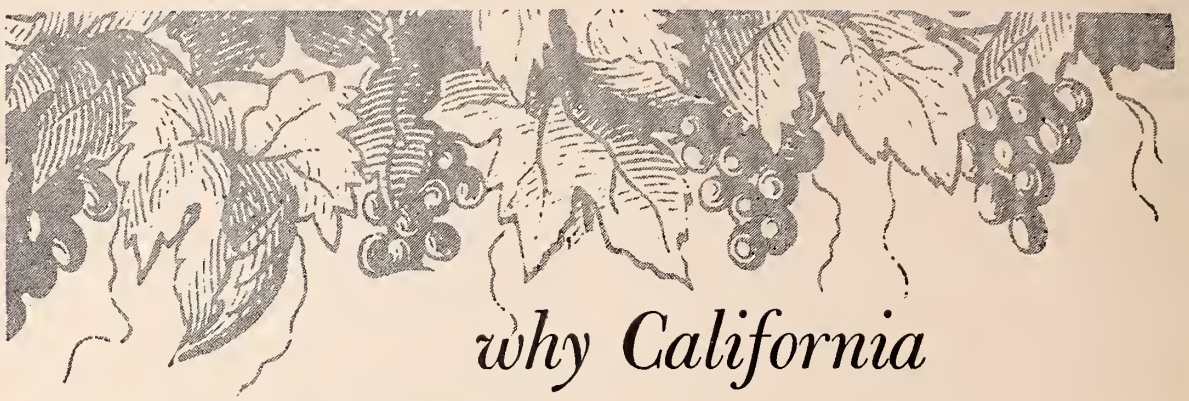
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9, April 1956. 179. Friedman, A. P.: The treatment of chronic headache with mepro- Use of tranquilizers in the treatment of headache. Am. Pract. & Digest Treat. 8:94, .M.A. 163:1111, March 30, 1957. 182. Friedman, H. T. and Marmelzat, W. L.: Adverse robamate [Miltown] - a clinical study. Am. J. Psychiat. In press, 1957. 184. Gibbs, Relaxant effects of meprobamate in disabilities resulting from musculoskeletal and 453, July 1956. 186. Gillette, H. E.: The effect of meprobamate on cerebral palsy. ers and purpura hemorrhagica (Correspondence). J.A.M.A. 161:96, May 5, 1956. 188. An evaluation of meprobamate in the treatment of alcoholism. Ann. New York Acad. Sc. "Habit-forming" individuals (Queries and Minor Notes). J.A.M.A. 163:515, Feb. 9, e. Ohio M. J. 52:1306, Dec. 1956. 192. Hollister, L. E., Elkins, H., Hiler, E. C. ad. Sc. 67:789, May 9, 1957. 193. Hollister, L. E., Stannard, A. N. and Drake, C. F.: 194. Holoubek, J. E., Thomas, C. C. and Smith, J.: Toxic reaction to 2-methyl- 95. 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Rx why California table wine in the low-sodium diet?

TABLE I[1]

	No. specimens examined	Sodium (mg./100 cc.) Mean
Musts (crushed white grapes)	9	1.63
California Red Table Wines	82	5.56
California White Table Wines	73	5.44
California Dessert Wines	104	7.10

*D*ietary restriction of sodium has become a standard procedure in the control of edema associated with cirrhosis of the liver, congestive heart failure, certain kidney ailments, toxemias of pregnancy, during digitalization and in drug-induced diuresis.

Unfortunately sodium-restricted diets tend to be flat, tasteless, monotonous, leading toward failure of dietary cooperation by the patient.

In such cases California table wine may be employed safely as well as to advantage in making the food more palatable without adding significant amounts of sodium.

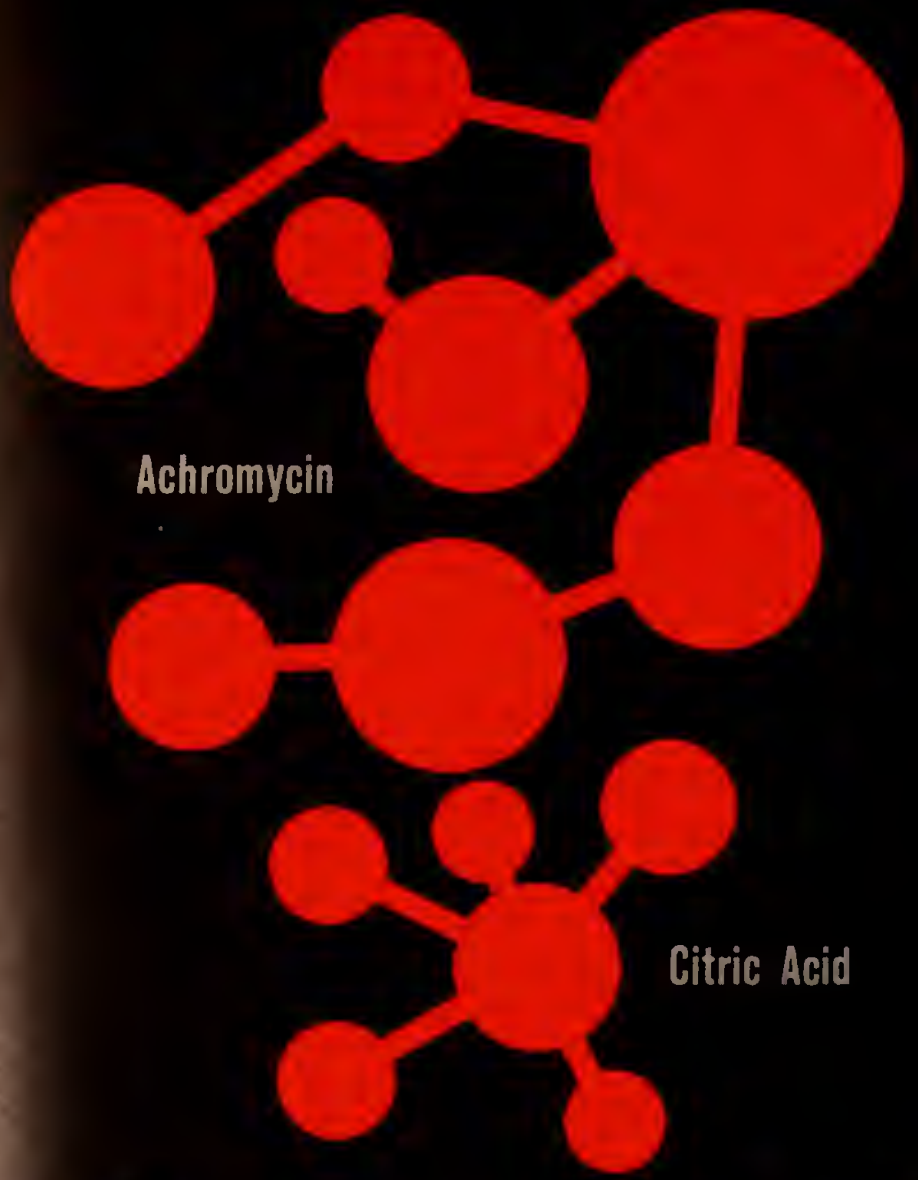
In a recent study[1] it was shown that California table wines are remarkably low in sodium content—less than 10 mg. per 100 cc. (3½ ounce glass).

Since recent research [2,3,4] has also shown that wine stimulates a lagging appetite and aids digestion while adding a sparkle to any meal—why not encourage the moderate use of wine by the patient on a restricted dietary, as well as by the sufferer from anorexia, the post-surgical, convalescent or geriatric patient?

May we send you a copy of "Uses of Wine in Medical Practice"? A copy is available to you, at no expense, by writing to: Wine Advisory Board, 717 Market Street, San Francisco 3, California.

1. Lucio, S. P. and Hunt, M. L.: Am. J. Digest. Dis. 2:26 (Jan.) 1957.
2. Goetzl, F. R.: Permanente Found. M. Bull. 8:72 (April) 1950.
3. Irvin, D. L. and Goetzl, F. R.: Permanente Found. M. Bull. 9:119 (Oct.) 1951.
4. Irvin, D. L.; Durro A., and Goetzl, F. R.: Am. J. Digest. Dis. 20:117 (Jan.) 1953.

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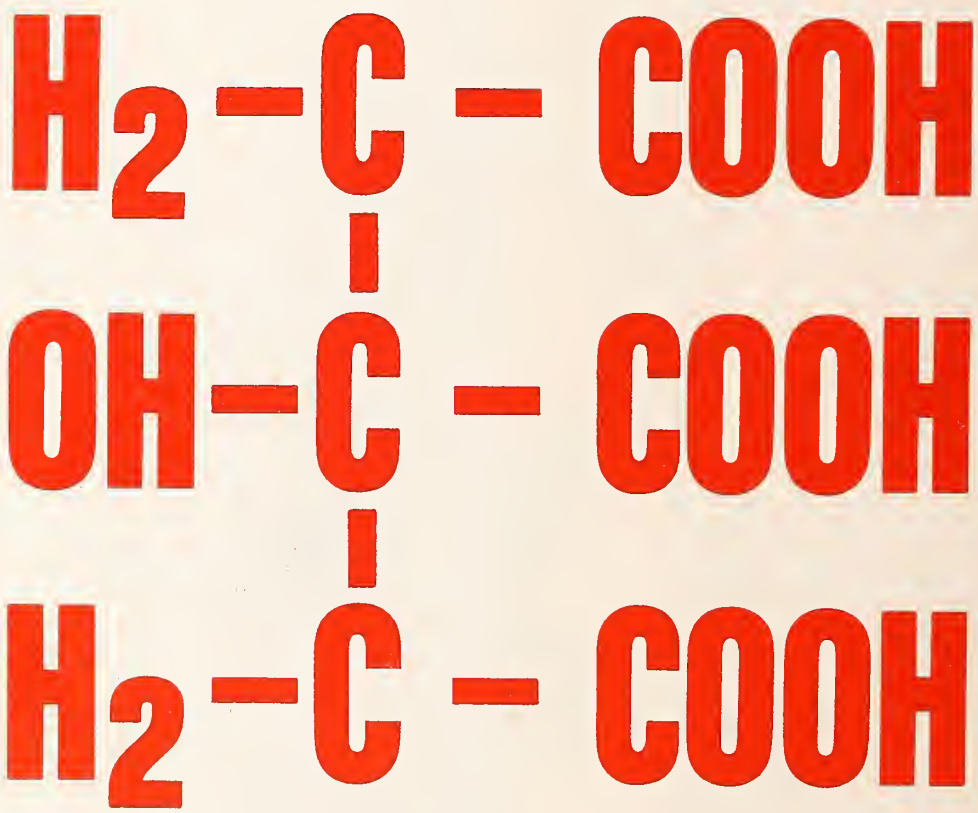
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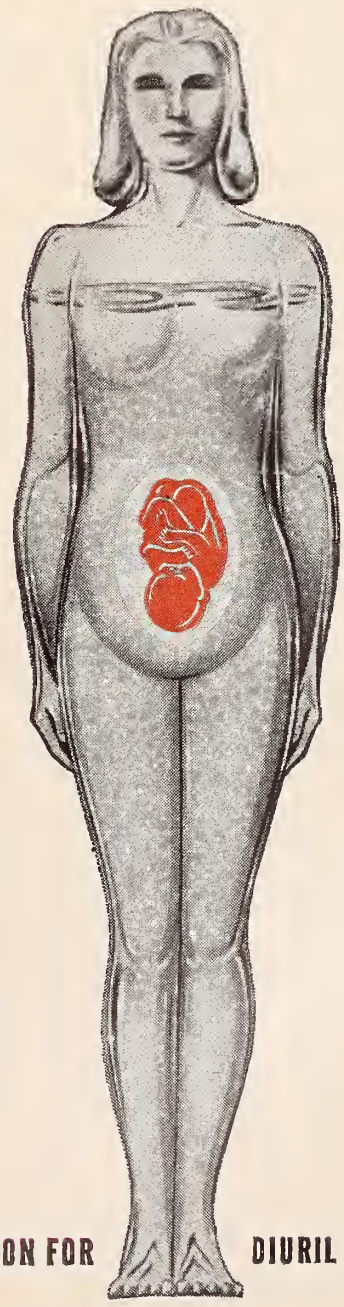
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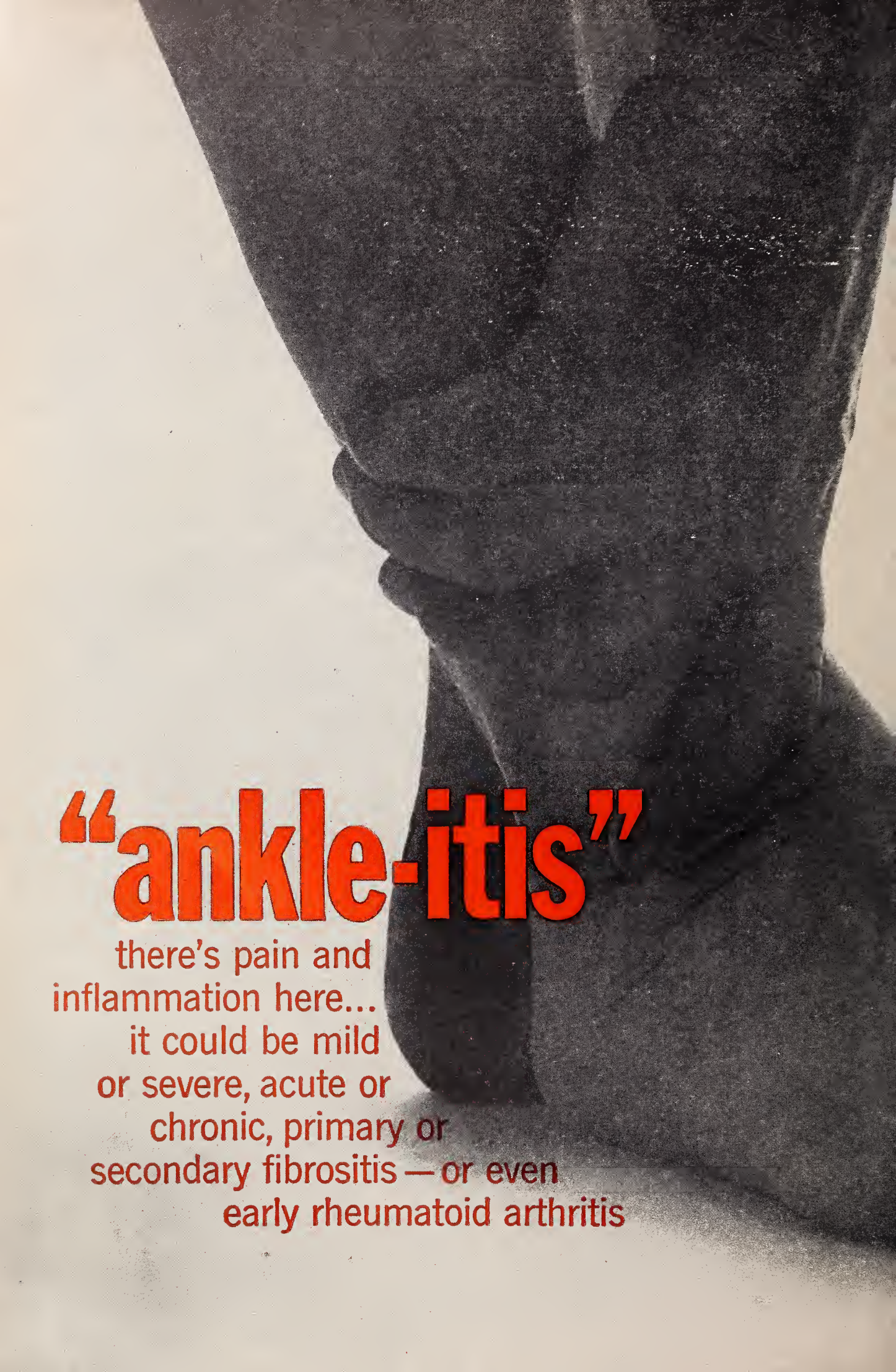
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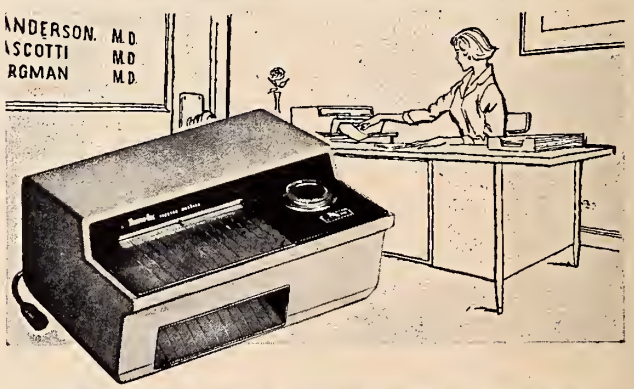
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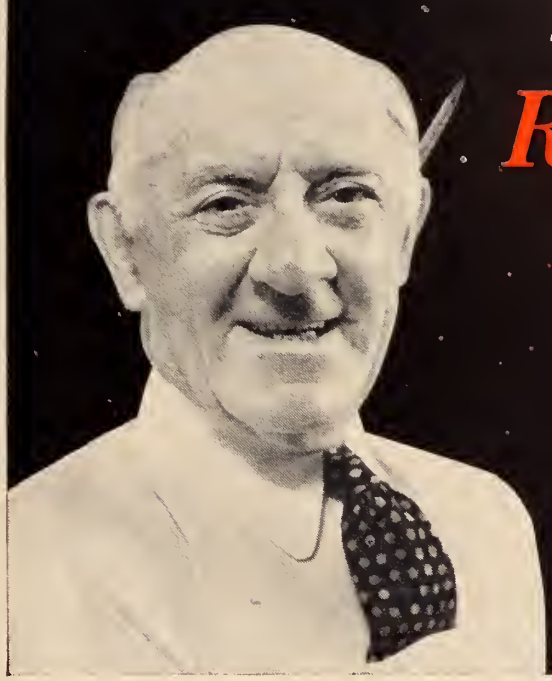
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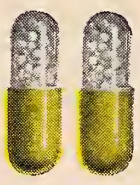
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2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

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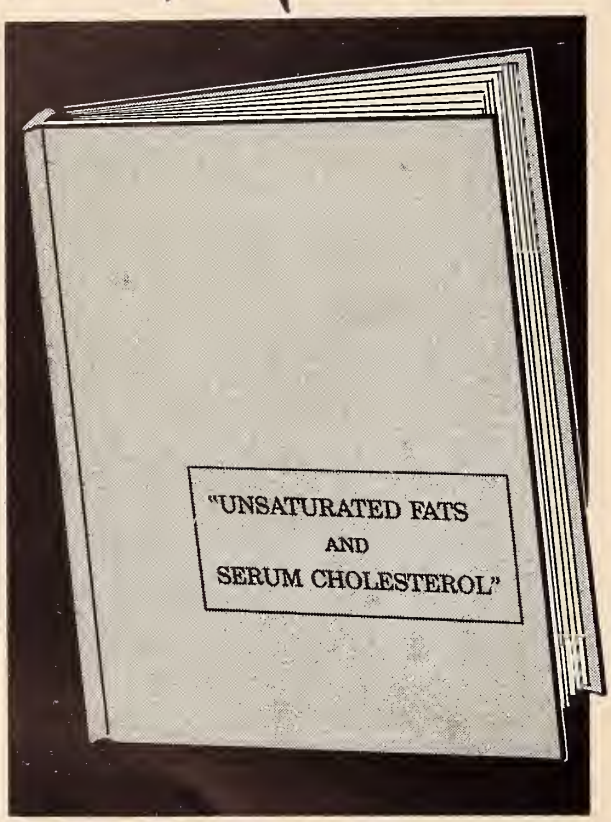
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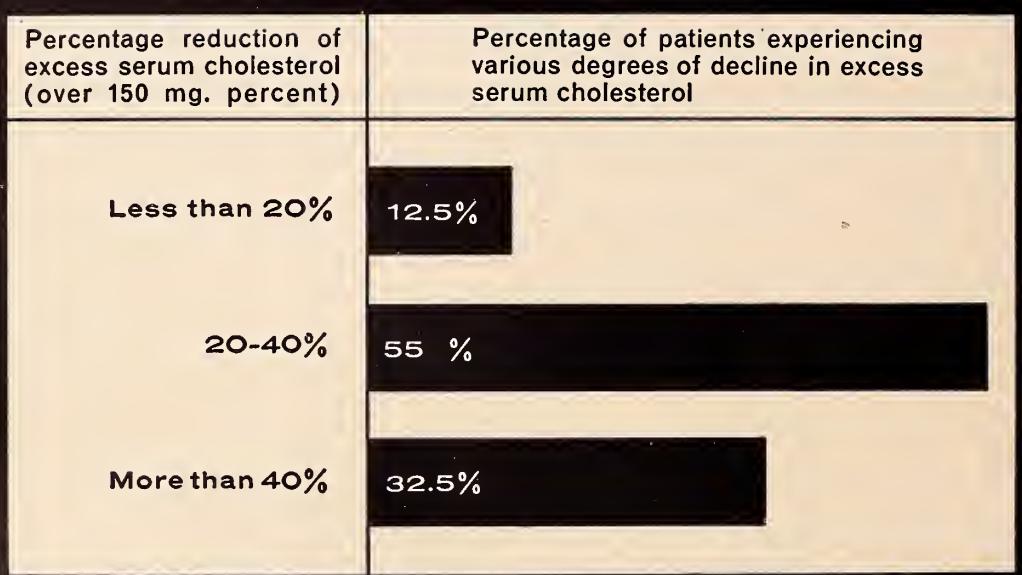
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Original Articles

THE VALUE OF ENDOMETRIAL CULTURES IN THE DIAGNOSIS OF ENDOMETRITIS*

By Byron Butler, M.D., Med. Sc. D.
Phoenix, Ariz.

CULTURING of the endometrium can be a valuable adjunct to diagnostic and therapeutic gynecology. In the past 2½ years this procedure has radically changed my method of sterility investigation, and has been the key to diagnosis and treatment of otherwise perplexing cases. In practice, a bacteriologic approach such as this broadens one's horizon beyond dependence upon pathology and manual examination. Then, too, it is simple to take an endometrial culture, for whenever a curettage or an endometrial biopsy are done, a portion of the curettings can be placed aseptically into a sterile tube, and cultured aerobically and anaerobically. If an organism grows out, it can be identified and, by means of sensitivity studies, the antibiotic of choice for therapy determined.

The fundamental principles involved can be briefly stated as follows: The normal external os of the cervix almost always harbors bacteria, while the uterine cavity is sterile. Thus, the cervical canal acts as a nearly perfect lethal chamber for bacteria, although, amazingly, it allows spermatozoa to pass through freely. This selective barrier works well, but its function can be disrupted by pathology within the tubes, the uterus or in the cervix. The uterine cavity recovers rapidly from a single insult of low pathogenic bacteria, but falls victim to repeated probings and to more virulent organisms and thereby becomes chronically infected. An infected uterine cavity may be symptomless, but it lies in wait for the unwary to disturb it and to spread infection to the adjacent tubes, lypmhatics or blood stream where it produces obvious signs and serious symptoms.

We are all familiar with the infected criminal abortion where both of these admonitions have been violated. That is, repetitious invasion of the uterine cavity and introduction of virulent bacteria on poorly sterilized instruments. Also, we realize how precarious our position is when the abortionist starts things and we unsuspectingly finish what is apparently an uncomplicated incomplete abortion. We later encounter septicemia and pelvic cellulitis, for our sterile technique will not correct for the violations already committed. But if at curettage in these cases, a portion of the endometrium is cultured, infection can be diagnosed early and specific therapy instituted promptly.

Nearly Fatal Case

My own interest in this subject was initiated by a nearly fatal case. The patient was 23 years old and had had repeated curettements and endometrial biopsies over a four-year period for menorrhagia and metrorrhagia. Since all previous studies had been to no avail, a hys-

*Presented Dec. 6, 1957, Medical Society of United States and Mexico — Tucson, Ariz.

teroscopy was done to rule out a submucous fibroid possibly missed by the previous procedures. The Norment hysteroscope was used and the uterine cavity distended with sterile water as one would use a cystoscope in the bladder. Prior to this case, I had done 25 hysteroscopies without a single complication, but post-operatively this patient developed septicemia, peritonitis and salpingitis due to staphlococcus aureus. Only the most intensive antibiotic therapy saved her life. Although a uterine culture was not taken at the time of hysteroscopy, I believe that this patient had a chronic endometritis due to the many previous invasions of the uterus, and that the irrigation of the uterus with water under pressure forced bacteria into the peritoneum, tubes, and blood stream.

Similarly, it is distressing to have salpingitis and peritonitis develop following a tubal insufflation, for subsequently these patients are unusually hopelessly sterile to say nothing of their protracted and difficult convalescence. Awareness of subtle chronic endometrial infection and the usual history of preceding repeated uterine instrumentation could prevent such complications.

To aid infertility patients where the cervical mucus is hostile to sperm, or where there is a low sperm count, infertility specialists have injected semen into the lower cervical canal and even directly into the uterine cavity. In a few of my own cases in which this was done, focal areas of endometritis were found on endometrial biopsies done subsequently. On culturing the endometrium of these cases, staphylococcus, streptococcus, and E. coli grew out. These patients had no fever, discharge, or change on pelvic examination. The diagnosis depended largely on the endometrial culture and the pathologic picture in the endometrium of widespread inflammation. The high incidence of true endometritis in these cases precludes against the rational use of either cervical canal or uterine cavity insemination, for these procedures are dangerous and unsuccessful. Contrariwise, however, the proper use of the cervical cap was not followed by endometritis and may be used without fear.

Tests Done In Hospital

The usual sterility study requires repeated cervical canal instrumentation. That is, endometrial biopsy, tubal insufflation, hysterosalpingogram, post-coital tests and curettement. In some more difficult cases, the above procedures may be repeated many times. In my own study, the incidence of positive endometrial culture and pathological evidence of endometritis was directly proportional to the frequency of the procedures. Because of this study, reported elsewhere (1) in detail, I no longer diminish the already lowered fertility of my patients by subjecting them to these repetitious procedures. Rather, these patients are admitted to a hospital, and all of the diagnostic tests necessary are done at one time under anesthesia and with operating room asepsis. The operation is done a few days premenstrually. A tubal insufflation, measurement of the cervical-uterine ratio, a hysterosalpingogram, a curettage, a uterine culture, and cervival repair as indicated can be done satisfactorily at one time. Post-operatively, the patient may be placed on antibiotic therapy prophylactically. If the endometrial culture should grow out an organism, sensitivity studies will indicate the drug of choice to be used. Subsequently, instrumentation of the cervix and uterus should be avoided.

This method is ideal for the new sterility patient who has had no previous studies for nearly always the intra-uterine culture will be sterile and the post-operative course is smooth and afebrile. Not so the patient who in the past has had repeated studies, even as long ago as six months, for in these cases, 10 per cent or more will have a chronic uterine infection and in these infected cases, performance of diagnostic procedures may be followed by serious complications. In these suspected cases, antibiotic therapy should be instituted with a broad spectrum antibiotic for five to seven days preoperatively. Within 24 hours after the curettage, the endometrial culture will show whether or not there was persistent endometrial infection. If so, the best suited antibiotic can be started if required by the clinical course of the patient. Thus, infection if present may be cured, and thereby prevented from spreading to structures which can make infertility absolute. If it is not present, there has been no harm. To reiterate, to prevent introduction and spread of infection into the uterus, a complete sterility study should be done at one time and preferably under anesthesia; thereby

we will protect and aid the remaining fertility of our patients.

Grouping of Cases

More recently a comparison of the endometrium and cultures obtained in all types of cases in a general gynecological practice has been made but, surprisingly, a lack of an absolute correlation between the pathological picture of acute or chronic endometritis and positive culture was found. In fact, the cases studied so far, can be divided into four groups: In group I, there is definite pathological evidence of endometritis and a positive culture for a pathogen. In group II, the culture is positive, but not necessarily for a pathogen, and the endometrium has no signs of infection. In group III, there is a pathological picture of endometritis, yet the culture is negative, and in group IV, the culture is sterile and the endometrium is normal. There is little question that group I cases have true endometritis and that group IV are normal and sterile. Group II may represent contamination of sterile endometrium during the process of taking the culture, while group III would indicate that normally there may be considerable leucocytic and lymphocytic invasion of the endometrium but that this is not necessarily due to bacterial infection.

Class I represents obvious cases of endometritis. That is, the culture is positive for a pathogen and the endometrium has pathologic changes consistent with inflammation. In this group one will find most cases of intra-uterine and cervical canal insemination, 10 per cent to 20 per cent of patients who have had repetitious invasions of the uterus subsequent to sterility studies, most criminal abortions, and rare but recalcitrant cases of menorrhagia and metrorrhagia. Then, too, there is endometritis associated with pelvic inflammatory disease, as well as that found with polyps and growth in the uterus which have prolapsed through the cervix and lie in the vagina. Likewise, following the protracted use of stempessaries and wishbone contraceptives and even with proper use of intracavitary radium, uterine infection will nearly always be found; for any mechanical object extending from the grossly infected vagina into the sterile uterine cavity will in time overtax the bacteriostatic function of the cervix. Then too, the integrity of the cervical canal may be compromised by too high amputation of the cervix as with the Manchester procedure, or following a traumatic delivery when the cervix is deeply lacerated. Also, uterine infection is occasionally found when the cervical canal is widely patent and there is no effective sphincter action of the internal os.

Avoiding Complications

To summarize, whenever there is tubal infection above or interference with the homeostatic function of the cervix below, uterine infection may occur. Awareness of this possibility will be of value to all who treat these patients, for thereby complication can be avoided and therapy becomes rational and effective.

Both the culture is sterile and the endometrium is normal in class IV, and most patients are in this group. They include cases of functional bleeding, spontaneous abortion, uterine polyp, cancer and growths that do not prolapse through the cervix. Patients with erosion of the cervix, dysmenorrhea, and endometrial hyperplasia also, nearly always have a sterile uterine culture.

The intermediate classes II and III, should be considered as not having true endometritis; for in class II although the culture is positive, the organism is not usually a pathogen and in class III, if the culture is sterile, the endometrial changes are not due to bacteria.

Finally, by actual experimentation, it was found that in nearly all class I cases which were treated with a specific antibiotic, the endometrium became sterile and free from inflammatory changes. This evidence is presented as proof for the identity of a distinct clinical entity, endometritis, and indicates its therapy by specific antibiotic action.

Summary

Repeated uterine instrumentation may be followed by endometritis. This may be prevented in infertility investigations by doing a complete study at one time and preferably under anesthesia.

In gynecology, endometritis occurs whenever the bacteriostatic function of the cervical canal is interferred with. Its recognition in abortions, prolapsed submucous fibroids, and inadequate cervical canals indicates at once additional rational therapy with specific antibiotics.

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IMPORTANCIA DE LOS CULTIVOS ENDOMETRIALES EN EL DIAGNOSTICO DE LA ENDOMETRITIS

Por B. Butler, M.D., Med. Sc.D.
As Translated by A. Olivares, M.D.

LOS CULTIVOS del endometrio puden ser de una ayuda valiosa en el diagnóstico y tratamiento en Ginecología. En los últimos dos años y medio este procedimiento ha cambiado radicalmente nuestro método de investigación en osteriliadad y ha sido la llave en el diagnóstico de muchos casos insondables. En la práctica, un acercamiento bacteriológico como este, abre un amplio horizonte, antes que depender en la sintomatología y el examen manual. Además de que as muy simple tomar un cultivo del endometrio cuando quiera que se haga un curetaje uterino o una biopsia del mismo, una pequeña porción de la muestra obtenida puede ser fácilmente colocada asepticamente en un tubo estéril y cultivada para agentes anaerobios y aerobios. Si algún organismo se desarrolla, este puede ser identificado y por medio de la prueba de la Sensibilidad, escoger asi el antibiótico apropiado para el tratamiento.

Los principios fundamentales pueden exponerse brevemente de la siguiente manera: El orificio externo del cuello uterino casi siempre aloja gérmenes patógenos, mientras que la cavidad uterina es estéril. El canal cervical actua como una casi perfecta cámara letal para las bacterias, pero asombrosamente permite el paso del espermatozoide a traves de él. Esta barrera selectiva trabaja muy bien, aunque su función puede ser fácilmente interrumpida y dar origen a infecciones en las trompas, en el utero o en al mismo cuello. La cavidad uterina tiene la ventaja de recuperarse rápidamente de una pequeña invasión bacteriana de baja toxicidad, pero puede caer víctima de repetidos sondeos y de mas virulentos organismos e infectarse crónicamente. Una cavidad uterina cronicamente infectada puede no dar síntomas, y la infección permanecer alli esperando por el incauto que la extienda hasta las trompas, los linfáticos o el torrente circulatorio donde producirá evidentes signos y serios síntomas.

Todos estamos familiarizados con los abortos criminales infectados donde todas las admoniciones han sido violadas. Esto es, invasiones repetidas de la cavidad uterina y la introducción de agentes bacterianos por medio de instrumentos pobremente esterilizados. Comprendemos cuan precaria as nuestra posición cuando los aborcionistas comienzan estas cosas y nosotros sin sospechar tenemos que terminar con lo que aparentemente es un incomplicado aborto incompleto. Más tarde encontramos septicemia y celulitis pélvica y nuestra técnica estéril no corrigió las violaciones ya cometidas. Pero si al tiempo de la dilatación y el curetaje en todos estos casos una porción del producto obtenido es cultivado, la infección podría ser diagnosticada temprenamente y la terapeútica especifica instituida prontamente.

Nuestro interés en esta materia se inició por un trágico y casi fatal caso. Se trataba de un paciente de 23 años de edad que había tenido repetidos curetajes y biopsias endometriales por un periodo de más de cuatro años debido a menorragias y metrorragias. Como los previos estudios no fuesen eficaces decidimos hacer una histeroscopía para investigar a cerca de la posibilidad de un mioma submucoso posiblemente no descubierto en los procedimientos anteriores. Empleamos el histeroscopio de Norment y dilatamos la cavidad uterina con agua estéril tal como cuando se hace una cistoscopía. Con anterioridad a este caso, habiamos hecho 25 histeroscopías sin ninguna complicación, pero nuestro paciente desarrolló una septicemia post-operatoria, peritonitis y salpingitis debido a estafilococos aureus. Solamente una terapeútica heróica salvó su vida. Aunque, un cultivo uterino no fué tomado al tiempo de la histeroscopia, pensamos que ella debió padecer de una endometritis crónica debida a las muchas invasiones previas y que la irrigación del utero con agua bajo presión empujó las bacterias hacia el peritonéo, las trompas y al torrente circulatorio. Es penoso también que se desarrolle una salpingitis y peritonitis inmediatamente después de una insuflación de las trompas, por consiguiente estos pacientes serán estériles sin esperanzas y harán una prolongada y díficil convalescencia. La sospecha de sutiles in-

fecciones crónicas del endometrio y la historia usual de anteriores y repetida instrumentación, podrían prevenir tales complicaciones.

Con la mira de ayudar a pacientes estériles en donde la mucosa cervical es hóstil al esperma o donde hay un bajo recuento de espermatozoides, especialistas en infertilidad han inyectado semen dentro de la porción baja del canal cervical y aún directamente dentro de la cavidad uterina. En unos pocos de nuestros propios casos en que esta fué hecho, se encontraron areas de endometritis focal en biopsias endometriales hechas posteriormente. El cultivo del endometrio en estos casos desarrolló, estafilococos, estreptococos, y E. coli. Estos pacientes no habian tenido fiebre, secreción vaginal o cambios notables en el examen pelvico. El diagnóstico dependió largamente de los cultivos endometriales y del cuadro patológico de una inflamación ampliamente extendida. La alta incidencia de endometritis verdadera en estos casos presagió en contra del uso racional de inseminación del canal cervical o de la cavidad uterina y que son peligrosos y sin éxito. Al contrario, sin embargo, el buen uso de los tapones cervicales para inseminizar no fué seguido por endometritis y pueden ser usados sin ningún temor.

Los usuales estudios en esterilidad requieren una repetida instrumentación del canal cervical. Esto es, biopsias endometriales, insuflación de las trompas, histerosalpingogramas, pruebas después del coito y curetajes. En algunos casos díficiles los procedimientos anteriores tienen que ser repetidos muchas veces. En nuestros propios estudios, la incidencia de cultivos positivos del endometrio y la evidencia patológica de endometritis fué directamente proporcional a la frecuencia de estos procedimientos. Una información detallada a cerca de este estudio, será presentado pronto en un artículo que sobre "Fertilidad y Esterilidad" está próximo a ser publicado. Se disminuyó la ya presente baja fertilidad de los pacientes, evitando en ellos la repetición de los ya mencionados procedimientos. En lugar de esto, los admitimos al hospital y se hacen todas las pruebas necesarias a un tiempo bajo anestesia y con asepsia. La operación se hace unos pocos días antes de la fecha premestrual. Insuflación de las trompas, la medida de la proporción cervico-uterina, histerosalpingogramas, curetaje, cultivo endometrial y una reparación cervical, puede ser hecho satisfactoriamente al mismo tiempo. Post-operatoriamente el paciente debe ser colocado bajo antibióticos como una terapeútica profilactica. Si el cultivo endometrial desarrolla algun organismo, el estudio de sensibilidad indicará el antibiótico de elección que debe ser usado. Posteriormente toda instrumentación del cuello y del utero debe ser evitada.

El método anterior es ideal para los nuevos pacientes que padecen de esterilidad y quienes no han tenido previos estudios y en quienes casi siempe el cultivo intrauterino será estéril y el curso post-operatorio sin complicaciones y afebril. No asi los pacientes quienes en el pasado han tenido repetidos estudios y aunque ellos hayan sido hechos tan distantes como seis meses; de estos casos el 10% o más tendrán una infección uterina crónica y cualquier procedimiento diagnóstico que se intente puede ser seguido por serias complicaciones. En los casos sospechosos una terapeútica con antibióticos de amplio espectrum debe ser instituida por 5 o 6 días preoperatorios. En el espacio de 24 horas el cultivo del endometrio mostrará si hay o nó una infección endometrial persistente. Si asi fuere, el más apropiado antibiótico puede ser comenzado si el curso clínico del paciente asi lo requiere. Asi, si alguna infección está presente será curada y de tal modo se evitará extenderla hacia estructuras que pueden hacer la infertilidad absoluta. Si la infección no está presente no han habido daños. Para prevenir la introducción y la extensión de infecciones dentro del utero, un estudio completo de esterilidad debe ser hecho a un tiempo y preferible bajo anestesia; de este modo protegeremos a nuestros pacientes y ayudaremos a mantener lo que aún queda de fertilidad en ellos.

Recientemente comparamos el endometrio y el cultivo obtenido en todos los tipos de casos que en una práctica general de ginecología se pueden encontrar. Sorprendentemente en nuestra experiencia ha habido una falta absoluta de correlación entre el cuadro patológico de una aguda o crónica endometritis y la positividad de los cultivos. En efecto, los casos encontrados hasta ahora, pueden dividirse en cuatro grupos: en el grupo I, hay una evidencia patológica de endometritis con un cultivo positivo para agentes patógenos. En el grupo II, el cultivo es positivo, pero no necesariamente para un agente patógeno, y el endometrio no presenta signos de infec-

ción. En el grupo III, hay un cuadro patológico de endometritis y el cultivo es negativo, en el groupo IV, el cultivo es estéril y el endometrio normal. No hay duda a cerca de que los casos del grupo I tengan una endometritis verdadera y que el grupo IV sea normal y estéril. El groupo II puede representar contaminaciones de un endometrio estéril durante el proceso de tomar el cultivo. Mientras que el grupo III indicará que normalmente hay un considerable número de linfocitos y levcocitos invadiendo el endometrio, esto no es necesariamente debido a infección bacteriana.

El grupo I representa casos evidentes de endometritis. Esto es, el cultivo es positivo para agentes patógenos y el endometrio presenta cambios patológicos consistentes en inflamación. En este group I encontraremos que más de los casos presentan diseminación intraterina y del canal cervical, que del 10 al 20% de los pacientes han tenido invasiones repetidas del utero subsequentes a estudios de esterilidad; muchos a abortos criminales, y algunos casos raros pero recalcitrantes de metrorragia. También se presenta el caso de endometritis con inflamaciones de la pelvis como aquellas encontrados en polipos endometriales que se han prolapsado a traves del cuello y se alojan en la vagina. Asi como las que siguen al uso prolongado de pesarios, contraceptivos intra cervicales y aun con el propio uso de radium intracavitario. Infecciones uterinas serán casi siempre halladas por alguna extensión mecánica desde la vagina groseramente infectada hasta la cavidad uterina que algunas veces sobrepasa la función bacterióstatica del cuello uterino. También la integridad del canal cervical puede verse comprometido por amputaciones altas del cuello tales como en la técnica de Manchester o después de partos traumáticos en que el cuello es profundamente lacerado. También se encuentran ocasionalmente infecciones uterinas como causa de un canal cervical ampliamente abierto y con un esfinter interno inefectivo. Para sumarizar, dondequiera que haya una infección de las trompas arriba o una interferencia de la función homeostática del cuello abajo, puede ocurrir una infección uterina. El conocimiento de esta posibilidad será de gran valor para todos quienes traten estos pacientes, de tal modo, muchas complicaciones pueden ser evitadas y la terapeútica será racional y efectiva.

En el groupo IV el cultivo es estéril y el endometrio normal, la mayoria de los pacientes están en este grupo. Ello incluye casos de hemorragia funcional, abortos espontáneos, polipos uterinos, cáncer y excrecencias que no se prolapsan a traves del cuello. Pacientes con erosiones del cuello, casi siempre tienen un cultivo uterino estéril.

dismenorrea, hiperplasia endometrial también

Los grupos inmediatos II y III serán considerados como endometritis no verdaderas aunque para el grupo II el cultivo es positivo, el organismo no es usualmente un agente patógeno y en el grupo III, si el cultivo es estéril los cambios endometriales no son debidos a bacterias.

El argumento final para ser presentado será una adición moderna a las Leyes de Koch. : Si un cultivo para un agente patógeno es negativo y si los cambios inflamatorios desaparecen simultáneamente después de haberse tratado con un antibiótico al cual el micro-organismo es sensitivo entonces debemos decir que el micro-organismo aislado fué el agente causal.

Por experimentación, se encontró que casi todos los casos del grupo I que fueron tratados con un antibiótico especifico el endometrio resultó estéril y se encontró libre de cambios inflamatorios. Esta evidencia es presentada como una prueba para la identidad de una entidad clínica distinta, endometritis, e indica su terapeútica por acción específica de antibióticos.

RESUMEN.

La instrumentación uterina repetida puede ser seguida por endometritis. En las investigaciones sobre esterilidad, esto puede ser prevenido haciendo un completo estudio a un tiempo y bajo anestesia.

En ginecología ocurren endometritis siempre que la función bacteriostática de el canal cervical se encuentre interrumpida. Su reconocimiento en abortos, fibroides submucosos prolapsados e inadecuados canales cervicales, indica que una terapeútica racional con antibióticos especificos debe ser instituida inmediatamente.

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RESPIRATORY ALLERGY AND ENVIRONMENT CONTROL*

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A MOTHER frequently will complain that her child has "one cold after another," and may add that there has been more than one time when the "cold" has been followed by bronchitis, or even pneumonia. Investigation will often reveal that between these episodes of colds there is a more or less continuous presence of excessive sneezing and nasal itching. The minor symptoms of sneezing and itching of the nose do not particularly disturb the patient or his mother and, unless these symptoms are sought out, neither will think to mention their presence to the doctor.

They are important, however, for two reasons:

(1) They help to identify the "colds" as probably of allergic rather than infectious etiology. This, in turn, suggests the possibility that some of the so-called "colds," as well as the episodes of bronchitis and pneumonia, were actually episodes of asthma.

(2) They afford a continual guide as to how any plan of treatment is progressing, since one can usually safely assume that the etiology of these minor symptoms of sneezing and itching of the nose, and the etiology of the more severe episodes of coughing and wheezing, is the same.

CONTINUITY SYMPTOMS

When present, these are of great value as diagnostic and therapeutic guides.

A. *OF ALLERGIC RHINITIS:*

1. Excessive sneezing.
2. Nasal itching (rubbing).

B. *OF ASTHMA:*

1. Chronic night cough.
2. Cough or wheezing on exertion.

The effectiveness of a program to prevent asthma can often be promptly judged by its effect on one or more "continuity" symptom.

Fig. 1

The etiology of the respiratory allergy picture just described is inhalant in nature, more often than not. In children, all the other categories of etiology do not add up in frequency to as high an incidence as that of inhalant allergy.

Under inhalant allergy, two broad categories are of particular importance: household inhalants, and pollens. I will discuss household inhalants particularly, as I feel their control is often a most neglected area and one in which we may often help our patients greatly. In this discussion I would like the reader to keep in mind that I am referring to the problems of a known house dust-sensitive patient, one whose skin test or history — usually both — give convincing evidence that house dust is a problem to him. The comments made will *not* refer to the patient whose asthma or allergic rhinitis is entirely of food, pollen, bacterial or psychogenic origin. In my opinion, however, they *will* apply to over three-quarters of children with respiratory allergy, since over that number *are* allergic to household inhalants. Included under this term are house dust, animal epidermals, feathers, kapok, and cotton linters.

House dust is the most common cause of asthma; it is also the most frequent reactor by skin test. It follows that house dust should be worthy of our greatest attention and efforts at eradication. It is surprising, however, to see how seldom a serious effort is made to control it. This may be because of the seeming impossibility of making an inroad on so prevalent a substance — one which, a mother will point out, is present in all the rooms of a house, and in all neighbors' homes as well. But, if house dust really *is* the most common cause of respiratory allergy, *anything* we can do to reduce or eliminate it should be very worthwhile. Let us examine the possibilities.

House Dust Is Different

House dust has nothing to do with dust originating out-of-doors — with soil, or earth, or road dust. It is lint and dust originating *inside* the house from its contents — chiefly its furnishings — and from kapok and cotton linters in particular. It is what can be seen floating in the air

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ASTHMA IN CHILDHOOD

POSSIBLE CAUSES		*TRIGGER MECHANISMS*
	per cent	Climate
Inhalant	80 to 90	Emotion
Food	10 to 15	Odors — Smoke
Bacterial	1 to 2	Upper Resp. Infection
Other	2	Exertion and Fatigue

Fig. 2. Inhalant substances, especially house-dust, are the most common cause of childhood asthma.

when a shaft of light from a movie projector lights up thousands of particles between the light source and the screen. These particles come chiefly from stuffed furniture, from pillows, mattresses, box springs, sofas, davenports, studio couches, lined draperies, stuffed toys, and at times rugs and rug pads. None of these items are found out of doors or at school. It follows that, as far as house dust is concerned, we do not have to be concerned with the time a child spends out of doors or in school.

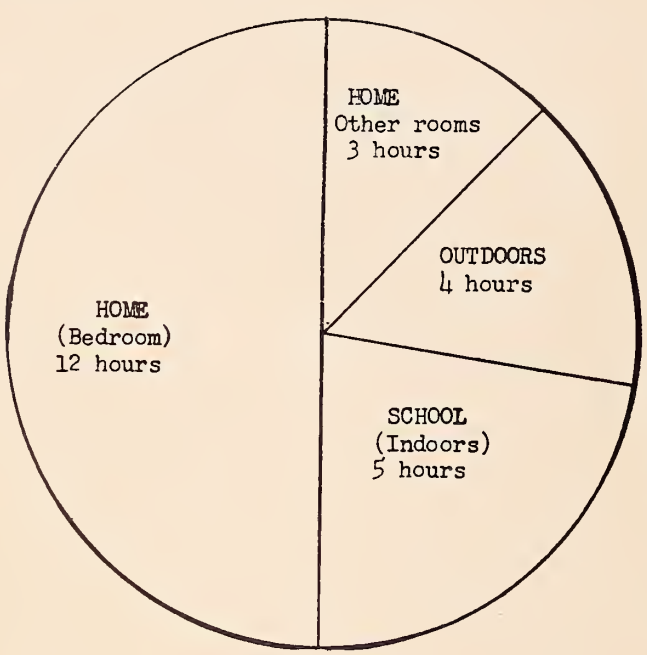


Fig. 3 ALLERGY IN CHILDHOOD
24 HOURS IN THE LIFE OF A CHILD

Where house dust is a factor in asthma (and it is the most frequent single cause), its removal from the bedroom alone accomplishes a great deal. The above diagram shows that 80 per cent of a child's contact with house dust is in this one room. At school and out of doors there may be dirt, but no "house dust."

The remainder of a child's life is spent mostly in one room — his bedroom. If he sleeps nine or 10 hours in this room and studies, plays or dresses and undresses another one to three hours, then about half his life is spent in this one area. Viewed in this manner, an all-out effort to eliminate sources of dust in a child's bedroom seems logical. By an "all-out" effort is meant just that—one which does not compromise, go half way, or cut the corners. Such sources of kapok or cotton linters as can be elmininated — like pillows or stuffed toys — are removed, and those which cannot be given up — like a mattress or box springs — are encased. The encasing is done properly, never with a plastic casing, which invariably deteriorates quickly, but with one made especially for the allergic or asthmatic patient which is practically dust-proof and will hold up for years. All upholstered furniture is removed; replacement by metal, wooden or rattan furniture is permitted. Lined draperies, woolen rugs, and hair pads are removed. If desired washable cotton throw rugs may be used. Pillows of dacron or rubber are non-allergic and are permitted. The closet is stripped of dust producers. The heating vent is closed, sealed off and, if room heating is necessary, an electric heating unit is obtained.

Next in consideration are animal epidermals and danders. By this is meant chiefly cats and dogs. There is probably no one area in which environment control is as neglected as it is here. Although cats and dogs are known as common causes of asthma the world over, parents and physicians still hesitate to enforce a "no pets" rule in the home of an asthmatic child. If history, scratch test or intradermal test indicate either dog or cat sensitivity, it is of course obvious that neither animal should be allowed in the home. Even when the skin test is negative, the child may be *clinically* sensitive to cat or dog and these animals should, therefore, not be permitted in the home.

No Pets

If the child is not yet sensitized to dog or cat dander, it is most unwise to permit him intimate contact with these animals since, if he is sensitive to one household inhalant such as house dust, he is an excellent candidate to become sensitive to another. In such a case, on a prophylactic basis alone, one is justified in ruling out cats or dogs as pets. Keeping the animal in the basement or the backyard, or away from the patient by some other means, while retaining it on the premises, simply does not work. It is teasing the child, as well as the animal, to try to enforce separation in this way and, more important, it is

hardly ever successful for more than a few weeks.

Only on a farm in the country, where a pet has other territory to roam and has never been and never will be in the house, is it practical to consider keeping a pet. Rackemann(1) of Boston, in reviewing the records of 449 adults who had been seen with asthma as children, concluded that failure to remove cats and dogs was a common reason for poor results. He writes: "All too often the family was slow to eliminate the dog or cat and our advice was not given with sufficient conviction and emphasis."

In our clinic we have a sign on the wall which reads: "Patients with asthma should not have cats, dogs, or feather pillows." It does *not* add, "if their skin test is positive."

Feathers, of course, can be another potent source of asthma and to have an asthmatic spending a third of his life sleeping on a sack of such a well known allergenic material is obviously unwise. If he is fortunate enough not to be feather-sensitive, there is no point to exposing him so throughly to the risk of becoming sensitized. Besides feather pillows, eiderdown comforters and birds should also be eliminated.

I have indicated that kapok and cotton linters play an extremely important role in house dust allergy. Cohen(2) found evidence that aging alone increased the antigenicity of these substances, while Rackemann(3) suspected that an interaction between these fibers and a mold caused a decomposition product which was allergenic. There is without question some factor that brings about increased antigenicity with age.

Kapok skin-testing material, however, is prepared from *fresh* fibers and usually produces a negative reaction even in an individual known to be sensitive to kapok in furniture. Those who care for asthmatics — some 75 to 80 per cent of whom are house dust-sensitive — should visit a mattress renovating establishment at least once to see what aging and decomposition can do to kapok and cotton linters. Some of the cheaper grades which start out as short, brittle fibers end up, after several years of aging, as little more than a powder. Such material in an old mattress or old upholstered furniture represents the heart of the house dust problem and can ruin any program of desensitization, medication, or other approach to the treatment of the house dust-sensitive asthmatic.

Other Rooms

We have thus far dealt largely with an "all out" attack on bedroom dust and have not spoken about other rooms in a home which may contribute house dust. These include the other bedrooms and the living room in particular. The dining area does not usually present much of a problem, and the kitchen and bathroom are not sources of dust. How much attention these other rooms require will depend, of course, on what is in them, the degree of sensitivity of the patient and how much time is spent in such rooms. Frequently the control of the patient's bedroom alone suffices to give adequate results.

There is a quantitative aspect to allergic sensitivity which is not adequately appreciated. Each patient has a tolerance for a certain amount of his allergen and the extent of trouble he has when this is exceeded depends to a marked degree on the amount of his exposure. If the parents' bedroom has feather pillows and the child regularly gets into their bed, it is obvious that the removal of feather pillows from his own bedroom will be less effective. If the television room contains some rich sources of house dust, he may still have trouble in this room, even though dust-proofing his bedroom has brought about a striking improvement. In most cases, fortunately, if the patient's bedroom is properly prepared, not a great deal will have to be done in other rooms of the home.

The importance we attach in our Children's Allergy Clinic to the sort of environment control I have outlined is based on the results it has obtained with our patients. We try not to be too academic in the matter of skin-test interpretation. If house dust alone gives a positive skin test, we believe the entire program should be put into effect. If *one* epidermal substance gives a positive test we strongly suspect *other* epidermals are also capable of causing trouble. If cat hair is positive and the animal is relinquished, we are not persuaded by the parents that a negative test to dog means a dog may remain in the house. It is asking too much of skin tests to have them do our thinking for us. They are not *that* reliable, and the extracts we use are not *that* good. I do not always discuss skin tests in detail

with parents. It is bad enough that *I* risk being misled by them without involving the parents. If the skin test to an inhalant is negative, but the history is convincingly positive from an intelligent and reliable parent, I will ignore the skin test and believe the parent. If a child sneezes and rubs his nose when playing with the dog, or if a lick by the dog causes redness of his skin, I consider the child to be sensitive to dog no matter what the report on the skin test indicates.

Scratch Tests Important

This is not to say I do not get a great deal of help from scratch tests to inhalant substances. I would be very unhappy if I had to give them up, and I consider them important enough to do myself. It is, nevertheless, important to realize their limitations, to make liberal use of control tests, and not to interpret the tests too narrowly.

In order to drive home to our patients the importance we attach to the environment control program, every patient on such a program is given written directions for bedroom dust control, (see appendix) in addition to a pamphlet on the subject of allergy in general. He is shown models of bedrooms which are furnished in the correct and incorrect manner. If the parents cannot afford to buy the proper encasings, the Crippled Children's Guild of San Francisco, which has been of tremendous help over the years in this regard, assists him in their purchase. Finally, an appointment is made to visit the patient's home, and we learn a great deal about the reasons for success, as well as failure, on these visits. They also have considerable psychological value, by impressing on the parents the importance we attach to the house dust control program. In addition, the visit often reveals errors or omissions, the correction of which are of real value to the patient.

There are additional aids which we are glad to employ in carrying out our program, but only when they are used in *addition* to and not *instead* of the elimination and control measures described. One of these is the use of electrostatic air filters which are expensive but useful adjuncts to a dust-elimination effort.

The *most* useful and frequent addition to a control program is the giving of immunizing injections of house dust. These usually increase a patient's tolerance significantly and, when combined with elimination measures, give satisfying results. The immunizing approach alone, however, is neither logical nor nearly as effective light happens to reveal them. When breathed into the nose and lung of the house dust sensitive person, these particles cause allergic swell- and often gives results which are very disappointing.

Summary

1. Most respiratory allergy in children is inhalant in nature; house dust together with animal emanations and feathers, constitutes the major portion of the problem of year around symptoms.

2. The elimination of all sources of house-dust in the patient's bedroom will go far toward eliminating most of his contact with house dust.

3. Cats and dogs are frequent causes of inhalant respiratory allergy; no child known to be sensitive to a household inhalant should have these pets.

4. Immunization with house dust extract is not logical nor as effective as it should be unless combined with elimination measures.

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APPENDIX

House Dust Allergy

More effective than any other procedure in relieving symptoms due to house dust is the removal of its various sources in the home. The bedroom, particularly, must be made as dust-free as possible. More time is spent breathing the air of this room than any other. In fact, a child spends close to 12 out of 24 hours — or half his childhood — in this one room. Since much of the other half of the child's life is out of doors, or at school where there is no contact with house dust, the problem centers largely on the bedroom.

The chief source of house dust is upholstered

furniture, mattresses, box springs, pillows, rugs, rug pads and stuffed toys. Kapok and cotton-linters, feathers, down and animal hairs are especially troublesome. The dust particles float in the air and are invisible, except when a shaft of ing of the mucous membrane. They may also cause skin eczema.

How To Prepare A Dust-Controlled Bedroom

1. The room should contain only one bed of metal or wood. A couch or sofa with attached legs will not do. If a second bed is in the room, it, too, must be prepared as will be described even though it is not occupied.

2. Remove all upholstered furniture, rugs, rug-pads, pillows, stuffed toys, window-drapes, and dust-catching ornaments. Remove all stored clothing, toys, packages, and other articles from the closet. The closet should contain only the patient's clothing in current use and should be as dust-free as the room.

3. Cover the mattress with a recommended encasing*, not an ordinary plastic one. If a box spring is used, although one is not necessary, it must have a similar encasing. Seal the zipper ends of the encasing with wide adhesive tape. A foam rubber mattress does not produce dust and so does not require encasing. Despite most salesmen's statements to the contrary, foam rubber box springs contain upholstering material in part and must be encased. You may also be told that foam rubber mattresses are not available without box springs. This is not so.

4. Close and then permanently seal all furnace pipe outlets in the room. Otherwise, the room will become filled with dust-laden air during the operation of the furnace.

5. Do not use comforters or quilts on the bed. Cotton, rayon or synthetic fiber blankets are best, but wool blankets are usually also tolerated. They may be used unless you are directed otherwise. Wool rugs, however, are not allowed, nor rug-pads, except those made of rubber. Cotton washable rugs may be used if kept clean. Instead of quilted bed pads, small folded cotton blankets may be used.

6. Pillows should be of foam rubber. Dacron or other synthetic fiber pillows may also be used. Do not use kapok, feather or down pillows.

7. Plain light curtains may be used at the window if kept dust-free. No drapes.

8. Move the remaining (un-upholstered) furniture to the center, or out of the room, in order to give it a thorough initial cleaning from top to bottom. Include the molding, lights, shelves, closets, etc. Keep the room dust-free with frequent cleanings and a weekly wiping down with an oiled or damp cloth.

9. Do not allow the patient to nap or sleep elsewhere unless the bed has been prepared as above. A couch or sofa cannot be encased and, therefore, is not permissible. If the patient is confined to bed by illness, do not bring in extra kapok or feather pillows. When he visits or travels, he should take his special pillow with him.

10. If a child plays in a room other than his bedroom, it, too, must be dust-free.

11. Since dogs and cats are among the most notorious causes of allergic troubles, the patient should not live in a home where they are kept. If not already allergic to these animals, their presence invites the child to become sensitive to them.

The improvement which follows attention to house dust in the bedroom can, if necessary, be increased by changes along similar lines in the living room and elsewhere. Feather or kapok pillows and old upholstered furniture are especially troublesome. The older they are, the more trouble they cause. Hair rug-pads are also a source of trouble.

Shredded foam rubber, or dacron fiber, or other synthetic fiber can be used to replace feathers or kapok in pillows. Rug pads can be dispensed with or rubber ones used. Woolen rugs or rugs made from other types of hair can be replaced by cotton, flax, rayon, or synthetic fiber rugs. Better yet, linoleum floor covering can be used.

The above precautions should be continued for many years even though symptoms are absent.

*Obtainable from Allergen-Proof Encasings, Inc., 4046 Superior Ave., Cleveland 3, Ohio, and other sources.

HYDATIDIFORM MOLE

A Report of Four Cases

By Robert C. Evans, M. D.
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THE INCIDENCE of hydatidiform mole is rare enough to warrant the reporting of all cases. According to Rubin and Novak,(1) the incidence is about 1:2,000 clinically and an estimated 1:25 subclinically. We at St. Joseph's Hospital in Phoenix, Ariz., have seen three clinical cases in the last 1½ years. These have occurred among about 7,500 deliveries seen during this same period, an incidence of about 1:2,500. A fourth case to be reported in this article was treated originally at another hospital, but was seen here for further treatment.

The presenting symptoms of this entity are usually a uterus which is growing more rapidly than one would expect with a normal pregnancy. This occurs with or without silent bleeding varying from spotting to gross hemorrhage. Later there may be the discharge of the typical grape like clusters of chorionic villi. Vomiting is more common and intense with the disease.

The etiology of this entity is not fully understood. It may be due to the failure of a union between embryonic and ectoembryonal vessels since these lesions are usually avascular(1). The pathogenesis seems to be underlined by disturbed hydrostatics taking place in the absence of the embryo, or in the presence of a macerated, nodular, or very stunted embryo(2).

This disease is feared because of its high incidence (39 per cent)(3) in the etiology of choriocarcinomas. The gross and miscroscopic examinations do not clearly indicate the prognosis of a mole, although, its potential of malignancy is approximately parallel to the degree of hyperplasia and anaplasia of the trophoblast. Choriocarcinoma following a mole is more common after 40 years of age.

There are several types or states of a mole. The most common, clinically recognized, is the benign type which occupies the uterine cavity and involves only the decidual lining. The next and probably more common but less recognized is the syncytial endometritis occurring in the residuum of trophoblastic cells. Then there are the cases of chorioadenoma destruens which is a trophoblastic overgrowth with penetration of villi into and through the uterine wall, parametrium and vagina, and finally choriocarcinoma.

The treatment of the disease is evacuation of the uterus. The incidence of severe hemorrhage is great enough not to warrant awaiting spontaneous abortion. Conservative measures such as IV pitocin drip, or quinine may be tried, but if these fail, dilatation and curettage or hysterotomy should be done depending on the size of the uterus. Great care must be exercised when using the curette since the extent of involvement of the uterine wall is not known and perforation is easy. The patient must then be followed to determine the level of chorionic gonadotropin in her blood. If after two months there is no more hemorrhage, there is normal uterine involution, and there is no longer a positive A-Z test, the danger may be considered over (although some believe it is safer to check these patients every month for six months). Should bleeding continue and/or the A-Z test remain positive, a cause must be found. This may require re-curettaging, as illustrated in one of the cases to be presented, hysterectomy, as illustrated by another case, or seeking the evidence of metastasis, as demonstrated by cases presented by Bardawil, Hertig, and Veldaro (4).

Case Reports

Case 1: Mrs. C. F. is a 22-year-old, white female, who was first seen at another hospital on June 11, 1956 at which time she gave a history of having had her last regular menstrual period in December 1955.

There followed episodes of intermittent bleeding which became continuous in April. Periods of crampy pain every two weeks occurred. Early in June 1956, she hemorrhaged severely and passed some grape-like material. At this time a diagnosis of hydatidiform mole was made. On July 6, 1956 a quantitative A-Z test was made and was reported as 113 international units, (normal for a non-pregnant female is considered to be between 50 and 400). The uterus was

emptied by dilatation and curettage on the date of diagnosis. Following the dilatation and curettage, she spotted occasionally and then began bleeding heavily again in the last week of July 1956. On July 31, she was admitted to this hospital. Pelvic examination revealed a bulky cervix. The body of the uterus was soft and antiverted, slightly enlarged and freely movable. Dilatation and curettage was done on Aug. 1. The uterus at this time measured 3½ inches deep and abundant masses of yellowish necrotic-appearing tissue were scraped from the cavity. There was very little bleeding. The pathological report stated, " . . . intermixed with small volume of endometrial material are masses of necrotic, partially hylanized and focally viable decidual tissue. A single chorionic villus which has undergone hydropic degeneration is identified." The patient was discharged from the hospital Aug. 20. On Sept. 4, she was again admitted to this hospital giving a history of having started to spot again a few days after her previous discharge. She began bleeding heavily again on Aug. 31, but it was not described as a normal period and occurred off and on. Dilatation and curettage was again carried out on Sept. 5. At this time the body of the uterus was slightly enlarged, globular, freely movable, and measured three inches in depth. The cervix was soft. The uterine cavity felt rough everywhere and several small fragments of degenerated decidual tissue were obtained. One piece had the gross appearance of a hydatidiform mole vesicle, or villus. There was again very little bleeding. The pathological report at this time stated, " . . . remnant of a hydatidiform mole with degenerating decidual tissue, trophoblastic elements, and prolific endometrium." The patient was discharged from the hospital on Sept. 6. She has been followed by one of the local specialists and has reported prolonged painless periods lasting five days and occurring every 30 to 31 days. She complains of painful ovulation and breast tenderness. She was last seen on Jan. 17, 1958, at which time a frog test for pregnancy was carried out and found to be positive. She had been trying to become pregnant for the last six months.

Menstrual History Normal

Case 2: Mrs. J. W. is a 24-year-old gravida one para zero, seen by us for the first time on Oct. 15, 1956. At this time she gave a normal menstrual history, her last normal menstrual period occurring in February 1956. At this time she was living in the eastern part of the United States and she sought the advice of a local specialist. Communication with him revealed that she was first seen on June 5, 1956 with the history of her last menstrual period occurring March 18, 1956. She had become married on March 25, 1956. She was seen with the symptoms of early pregnancy consisting of sore breasts, nausea and weight gain. The uterus was found to be about the size of a 12-week gestation, (slightly larger than the due date would indicate). Pregnancy tests on June 20, using serum and an African toad were reported to be negative. She was again seen June 14, complaining of some bleeding, and a repeat pregnancy test on the urine at a different lab was weakly positive. A missed abortion was mentioned as a possible explanation of the negative pregnancy test. The bleeding subsided and was replaced by a recurrent, brownish, foul-smelling discharge.

When seen by us, she complained of having cramps on and off almost constantly since June. She had been unable to feel her uterus contract during these pains. Physical examination on admission revealed the uterus to be enlarged to about 12 centimeters above the symphysis (approximately a five-month pregnancy). It was freely movable and non-tender. There was a brownish foul-smelling vaginal discharge. Admitting diagnosis was missed abortion. Consultation was made and the impression of the consulting physician was of a diagnosis of a missed abortion with consideration of a hydatidiform mole. He recommended induction with pitocin drip or hysterotomy.

Following the consultant's recommendation, IV pitocin (1 cc. in 1,000 cc. of 5 per cent dextrose in water) was started on Oct. 16. It was given at the rate of 20 to 60 drops per minute with no results and another 1 cc. of pitocin was added to the remaining 500 cc. of solution. This resulted in some contractions with a slight amount of bleeding, but no cervical dilatation. That night the patient was given 200 mgs. of stilbesterol and the next morning 2 cc. of pitocin in 1,000 cc. of 5 per cent dextrose and water were given at the rate of 60 drops per minute. Again some cramps occurred, but there was only little change in the cervix and only light bleeding.

With failure of induction, hysterotomy was de-

cided upon and carried out on Oct. 19. On opening the abdomen, the uterus was found to be elongated cylindrically and enlarged to a five-month pregnancy. Incision in the anterior wall of the uterus was made and the uterine cavity found to contain hydatidiform mole tissue. This was removed easily. It clung together markedly (this being unusual with this type of disease). The operation was relatively bloodless. The wall of the uterus was inspected closely, and no more tissue was found. There were no corpus luteum or thecal cysts found in the ovaries. The patient's postoperative course was complicated only by a bout of pneumonitis and patchy atelectasis. The pathologist reported that grossly the specimen appeared as a distorted placental disc, measuring 17 x 10 x 5 centimeters, and consisting of numerous grape-like structures ranging in size up to 1.5 centimeters. These were supported by a yellow-grey, firm tissue flecked with pink, and focal hemorrhage. Cross section revealed an amnionic cavity approximately 5 centimeters in diameter bordered by dirty yellow-grey tissue. Microscopic examination revealed polypoid chorionic villi, with markedly hydropic poor staining stroma which has in some areas progressed to liquefaction. There is an outer layer of Langhan's cells and, in some locations, groups of syncitial cells. The patient was discharged from the hospital on Oct. 28, 1956. She was seen by a local specialist and found to have normal pelvic findings on Jan. 28, 1957. The patient has not been seen since.

Hemmorrhage

Case 3: Mrs. L. G. is a 22-year-old, white female, gravida one para zero. She was first seen by me on March 17, 1957, giving a history of having had a last normal menstrual period on July 30, 1956. She stated that she could not have become pregnant later than August 1956. She was seen by another doctor in February 1957 who found the uterus enlarged, but not to the expected size. A pregnancy test at the time was positive. He considered a missed abortion. The patient had a brownish-red vaginal discharge since December 1957. She never felt fetal movement. Late in February 1958 she received an injection of estrogen and bled profusely. On my initial examination, the uterus was enlarged to about the size of a sixth-month pregnancy instead of the expected seven. X-rays of her abdomen revealed no evidence of fetal parts. Chorionic gonadotropin titer was done and reported as 357,000 international units. She complained of headache and high blood pressure and edema developed in the last week. The patient was admitted to the hospital on March 19 with vaginal bleeding estimated at 800 cc. On pelvic examination, the cervix admitted only one finger and was long and thick. The patient was transfused. It was believed best to do a hysterotomy which was then carried out. The uterus was found to be enlarged to the size of a sixth-month pregnancy and widened in the transverse diameter. The adnexa were found to be normal. A transverse incision was made in the uterus with removal of the grape-like mole tissue which fell apart as it was removed. The endometrium was curetted. The pathologist reported that the gross specimen consisted of a voluminous mass of grape-like structures measuring up to 3 centimeters in diameter. Scattered throughout the tissue were zones of condensed stroma, many of which were grossly necrotic. On microscopic examination there was considerable ischemic necrosis. Here and there were chronionic villi, which had undergone degeneration and which showed moderate, somewhat atypical trophoblastic activity. There was no suggestion of malignant change.

The patient had a normal postoperative course except for an unexplained febrile period lasting two days. A chorionic gonadotropin titer was repeated on April 3 and was found to be 155 international units. The patient was examined bimanually on April 10 and found to have a uterus about twice the normal size with normal adnexa. The patient returned to the East and letters from her state that she is well.

Enlarged Uterus

Case 4: Mrs. M. R. was first seen in the office of a local specialist on Nov. 26, 1956. Her last normal menstrual period occurred Sept. 26, 1956. She had spotted on Nov. 17, passing some clots and "tissue" on Nov. 22. The spotting stopped on the 25th, but she flowed heavily again on Nov. 26. She at this time passed a few clots and then stopped. When examined, the uterus was found to be enlarged to 12 centimeters above the symphysis. On Dec. 12, the uterus was found to be only 2 centimeters below the umbilicus and a hydatidiform mole was suspected. She was admitted to the hospital on Dec. 12, 1956 with a history of being a gravida four para two, and

signs and symptoms as previously mentioned. She had bleeding and cramps on Dec. 11 and early in the morning of the 12th passed several large clots. There was a notable increase in size of the uterus over the preceding two weeks. X-ray examination of the abdomen at this time revealed no evidence of fetal parts. Consultation was secured and the impression of the consultant was hydatidiform mole. He recommended hysterotomy with possible hysterectomy. On the afternoon of Dec. 12, the patient suddenly began bleeding, passing about 750 cc. of blood and blood clots. At this time the uterus was found to be about 2 centimeters above the umbilicus and transfusion was started. Hysterotomy was then carried out. The uterus at this time was found to be enlarged above the umbilicus and a mottled blue in color. There was a moderate amount of brown peritoneal fluid. An 8 centimeter incision was made in the anterior wall of the uterus and typical mole tissue removed. The endometrial cavity had a coarse appearance and was cleaned with finger curettage. Hemostasis was obtained and the patient returned to her room in good condition. Her postoperative course was normal except for a bout of unexplained fever lasting two days.

The pathologist reported that grossly the tissue appeared to be placental, characterized by a coarse, spongy consistency and friable throughout. Numerous hydatids ranging to 1 centimeter in maximum diameter were present. On microscopic examination, the tissue consisted of placental and decidual tissue with chorionic villi showing a double layer of trophoblastic cells. It was particularly avascular with marked hydropic degeneration. In addition there were small clumps and sheets of trophoblastic cells observed which exhibited considerable activity. The nuclei showed a wide range in size, some were hyperchromatic and an occasional multinucleated form was observed. Mytotic figures were occasionally foud but no atypical forms were identified. The impression was that of a hydatidiform mole with pronounced activity, and the pathologist commented that this was an active mole, with an invasive mole to be ruled out. There was not sufficient evidence at this time for a diagnosis of chorioepithelioma, and a close follow up was recommended. The patient was discharged from the hospital on Dec. 20. On Jan. 10, a pelvic examination revealed the uterus to be enlarged to that of a two to three month pregnancy, there was a dark lochia and a chorionic gonadotropin showed 45,000 international units. Accordingly the patient was again admitted to the hospital on Jan. 18, complaining that her breasts had become sore. The uterus was still enlarged and on D & C the cervix was found to be closed, with a thin, bloody discharge. It was easily dilated and scrapings revealed black appearing necrotic tissue obtained mostly from the posterior wall left cornu. Grayish tissue was obtained elsewhere. There was a moderate amount of bleeding. The pathologist reported at this time " . . .degenerating decidual tissue with trophoblastic elements." The patient was discharged then on Jan. 21. She was seen again in the specialist's office on Feb. 2 with a watery discharge and a chorionic gonadotropin titer of 1,808 international units. Because of this, the patient was again admitted on Feb. 25 and hysterectomy performed. The uterus was found to be three to four times normal size, had a smooth exterior surface, and was removed with the tubes without difficulty. The pathologist now reported, grossly, a uterus measuring 14 x 10 x 18 centimeters, and weighing 235 grams. There was a friable purple gray polyp in the fundus. Frozen section diagnosis of active trophoblastic proliferation was made. There was a circumscribed mass with a hemorrhagic surface which on cross section measured 2.5 centimeters in diameter. The areas appeared to be well circumscribed and did not penetrate to the serosa. The miscroscopic examination revealed isolated groups of cells of chroionic and syncitial type with areas of marked necrosis. The cells exhibited pleomorphism, large vesicular nuclei and pale staining vesicular cytoplasm. In other areas, the syncitial masses are composed of hyperchromic nuculear material with fine limiting membranes. These cytological manifestations of chorionic activity are associated closely with myometrial blood vessels and actually appeared to have lined these vessels in some areas. In none of the areas do the cells form large invasive sheets of tissue. In discussing the case, the pathologist said that the histopathology is indicative of an active destructive type of growth of chorionic and syncitial cells. The actual classification was difficult and depends largely on the future course of the patient. The fact that the chorionic cells line vaseular spaces and appear to be capable of disseminating into vascular

spaces is suggestive of malignancy. However, this was tentatively classified as a chorioadenoma destruens, chorioepithelioma not to be excluded at this time. The patient was discharged from the hospital on March 3. She was seen in the specialist's office on March 19 without any bleeding. On April 18, a chorionic gonadotropin level of 310 international units was found. On Aug. 12, 1957 the patient was examined and her pelvis found to be normal.

Discussion

The occurrence of these four cases in a year and a half at this hospital is somewhat unique in that they demonstrate three types of hydatidiform mole and three forms of treatment. In only one of the three cases first seen at this hospital was the uterus found larger than the expected gestational size. In the other two cases, the uterus was believed to be smaller than would be expected. Three of the four patients presented themselves with symptoms of bleeding, and only the patient who was not first seen at this hospital gave a history of passing the typical grape-like clusters of material. The first case represents, I believe, a case of syncitial endometritis, which is best treated by repeated curettage and close follow up. The second case represents the hydropic degeneration of a placenta with a uterine size large enough to require hysterotomy. The third case is that of a true hydatidiform mole, again with a uterine size large enough to require a hysterotomy. And the fourth case represents a chorioadenoma destruens with penetration into the uterine wall and requiring hysterectomy for ultimate cure.

Summary

1. A short discussion of hydatidiform mole is presented.

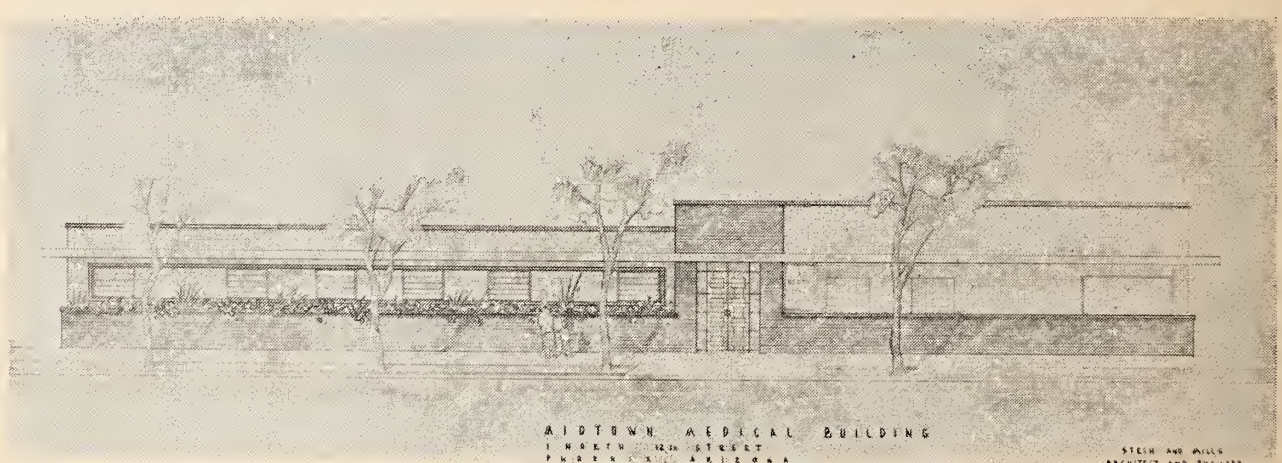
2. Four cases of varying types of hydatidiform mole are presented.

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The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notifed within 60 days if a manuscript is accepted for publication. Every effort will he made to return unused manuscripts.
8. Illustrations — Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.
9. Reprints — Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

AUTOCRACY
GROUP PRACTICE
THIRD-PARTY-PRACTICE

DR. GUNNAR Gundersen, president of the American Medical Association, has recently stated that he thinks group practice of medicine "gives patients more for their money." He further states that these groups will function more effeciently and have greater stability if they are "— run by a small autocracy" — than if they are "— run along democratic lines." After enunciating such an autocratic philosophy, he concludes by saying, "— I'll do all I can to preserve the professional freedom."

Webster defines *autocracy* as: 1. Independent; of self derived power; absolute supremacy. 2. Uncontrolled authority of an autocrat; supreme government by an individual. Autocratic denotes; arbitrary, absolute, despotic, tyrannical or tyranous.

We, as individuals, and as organized medicine, have fought hard to protect the American public from third party practice of medicine, because it is bad. Third party practice whether it be run by the federal government, private enterprise, labor groups, Kaiser, or medical groups, will not best serve medical needs of our people. One of the greatest evils of such control of medicine is that it would, in too many instances, fall into the hands of autocrats. These autocrats would then appease the whims of the few, rather than pay due regard to the multi-faceted needs of the many.

Dr. Gunderson proposes group practice under autocratic control, also, to preserve professional freedom. Does he mean the freedom of the medical profession as an autocratic, controlled unit, or the freedom of the individual doctors and their individual patients? Or does he mean to try to "— stiffen the resistence — to government interference," with another type of autocratic third party practice of medicine?

There are groups practicing medicine today which are threatening to become nation-wide in scope. How much difference will there be, in the near future, between the various groups whether or not they are run by autocratic M.D.s or by lay autocrats? An autocrat will be an auto-

crat in mode of operation irrespective of his point of origin.

The peoples of these United States have enjoyed personal freedom and prospered, as in no other nation, because individual freedom has been the basic concept as contrasted to autocratic reign.

Dr. Gundersen's tenets of autocratic rather than democratic control of any group must not become incorporated into the principles of the American Medical Association.

L.B.S.

P. S. The attitude of Dr. Gundersen reported in Medical Economics is quite in contrast to those expressed in his prepared inaugural address in San Francisco. In the latter he states, "In medicine, as all other phases of life, we are rediscovering that philosophy is just as important as technology, that human personality cannot be subordinated to crisp efficiency." Whereas, in the first discussion he chose to have physicians "— give up some of their individuality and to learn to work as members of a team." This team, he states, is best run by a small autocracy.

L.B.S.

THE NATIONAL FOUNDATION

THE NATIONAL Foundation (formerly the National Foundation for Infantile Paralysis) caused quite a stir across the nation when it decided to enter the field of arthritis and several other disease groups. Voices have been raised, and there is considerable criticism of the National Foundation for spreading out and "intruding" in other fields. This reaction is only natural and should be expected among the loyal organizers and workers of the other groups that might be swallowed up and forgotten.

Two basic questions that should be considered are, first, "Is the National Foundation right in its expansion, and deserving of continued support?" Secondly, "What should be the attitudes of the foundations or other disease groups being invaded or included?"

In an attempt to answer the first question, only time will tell or show the wisdom of the expansion of the National Foundation. Here is a strong organization of 3,100 chapters, with dynamic leadership, successful in achieving a great medical goal and a capacity to raise large sums of money,— $490 million in 20 years. In its expansion there might be a danger of increase in the loss of funds through cost of administration. There is also the possibility of loss of appeal to those people who give and work on an emotional basis for a single disease. On the other hand, in defense of this expansion, one must honestly ask the question whether or not such a powerful organization rendering service to mankind be allowed to die. There is much to be said in favor of the public support for research and charity through private contributions.

The Arthritis and Rheumatism Foundation, after most careful study of the situation during the past year, has voted overwhelmingly by chapters and committees against a merger with the National Foundation. During the past year, the chairman of the Arthritis and Rheumatism Foundation, along with some of the members, thought a merger with the National Foundation might give considerable impetus to the work in the arthritis and rheumatic disease field. On further scrutiny, several factors of importance against such a merger became evident. First, the National Foundation will not be dedicated to arthritis alone, but will spread its interest and funds among at least five different fields of health. The word "arthritis" would not be included in the name of the new foundation. The policies of operation of the two organizations, "The National Foundation" and "The Arthritis and Rheumatism Foundation," are quite different in that the 53 chapters of the Arthritis and Rheumatism Foundation are semi-autonomous, are incorporated under their own state laws, formulate and support their own medical programs, fix their own campaign goals, and are permitted to participate in local united fund or federated drives. None of these prerogatives are extended by the National Foundation to its 3,100 chapters. In addition to the foregoing, there were major legal complications in resolving the Arthritis and Rheumatism Foundation.

The magnitude of the arthritis and rheumatism problem, the greatest of all the disabling diseases, justifies all the help it may receive from any source. The National Foundation should be commended for recognizing the need in this field of arthritis and rheumatism, and its assistance, whatever it can offer, should be wel-

comed; but the National Foundation should not demand in return for its assistance exclusive command over all the aspects of the fight against rheumatism. D.F.H.

SECRETARY'S LETTER TO THE MEMBERS

TOO FREQUENTLY our committees or their chairmen have expressed prepared opinions which have not been analyzed by the officers, or the council of the Arizona Medical Association. There have been instances in which the chairman of a committee or the chairman of a sub-committee has released statements through our office, which have not even been acted upon by the respective committee. Some of these releases have been accepted by the press and others as representing the policies of our association. These unapproved statements have not always been factual, and hence, become sources of embarrassment.

The activities of this association have, of necessity, become broadened, making our coverage more complex. The volume of work required of our central office has become tremendous.

In order to "render service to all," it has been the custom of the central office to comply with all work requests, that is, in the preparation and release of materials. For politeness' sake, we have not been too diligent in weighing the necessity of preparing the work, or determining the implications of the subjects processed.

It is necessary to reduce the work load and to better control the association's releases, which may be misconstrued as policies of our medical association — hence, from now on, all requests for services will be passed upon by your elected officers prior to the processing and/or distribution.

LESLIE B. SMITH

Abstracts

HYPERCALCEMIA-NEOPLASTIC DISEASE

Cortisone in the Treatment of Hypercalcemia in Neoplastic Disease

Myers, W. P. Laird (Metabolic and Renal Studies Section, Div. of Clin. Chemotherapy, Sloan-Kettering Inst. for Cancer Res.; the Chemotherapy Serv., Mem. Center for Cancer and Allied Dis.; and the Dept. of Med., Cornell U. Med. Coll., New York, N. Y.) Cancer 11:83-88 (January-February) 1958.

THE FINDINGS reported here indicate that cortisone may prove useful in controlling hypercalcemia of neoplastic origin. The mechanisms whereby cortisone may induce a reversal of hypercalcemia in malignant tumors are not completely understood. Inhibition of the rate of growth of the tumor seemed to be responsible for the reversals of hypercalcemia and hypercalciuria in some patients, but other possible mechanisms, although not clearly defined, should not be overlooked.

During this study, 11 patients with hypercalcemia and hypercalciuria secondary to widespread cancer were given cortisone (10 patients) or prednisone (1 patient) in phramacological doses for from six to 54 days; treatment was initiated in four of the cortisone-treated cases with hydrocortisone (100 to 200 mg/day given intravenously for one or two days). The initial doses of cortisone ranged between 200 and 400 mg/day, and the doses were then tapered, depending upon the response of the individual patient. The prednisone, which was given for 10 days, was initiated with a dose of 100 mg/day, which was then tapered to 5 mg/day. The types of neoplasms treated included: Carcinomas of the kidney and breast, metastatic adenocarcinoma of undetermined primary origin, lymphosarcoma, multiple myeloma, and rhabdomyosarcoma of testicular origin. All but one of the patients had bone metastases demonstrable roentgenographically, and all of the patients were maintained on low calcium diets (about 200 mg/day).

The treatment induced a complete reversal of the hypercalcemia and hypercalciuria in five of the patients, caused a partial reversal in two cases, and elicited no response in five of the patients, caused a partial reversal in two cases, and elicited no response in four patients. A response usually occurred within two weeks, and longer periods of treatment were usually ineffective if

changes in the calcium levels in the blood and urine had not occurred within the two weeks.

Prednisone, in the one instance it was used, proved to be as effective as cortisone.

(Upjohn Abstract)

Editor's note: How refreshing to read the last sentence of the first paragraph — even in an abstract! — of the reports of the effectiveness of various steroids in ameliorating hypercalcemia in skeletal disease, since neoplasms are abundant. (See J. Clin. Endocrin. & Metab., Vol. 18, No. 8, August 1958, pgs 70-71 for a partial bibliography).

MANAGEMENT OF DRUG WITHDRAWAL

Medical Management of Acute Withdrawal Symptoms in Juvenile Male and Female Heroin Addicts; A Preliminary Report.

Landau, Raphael (Riverside Hosp., Med. Div., New York City) Illinois Med. J. 113: 13-15 (January) 1958.

INE JUVENILE patients with addiction to heroin (diacetylmorphine) were treated with a combination of sex hormones and vitamins, and in all cases there was a marked and rapidly favorable effect on the abstinence syndrome. The acute withdrawal symptoms decreased with unusual rapidity, and late withdrawal symptoms were checked. When the combination of hormone with B vitamins was followed by an intravenous injection of vitamin C, craving for heroin was abolished for a period of one hour up to two days. Preliminary studies indicate that this method of treatment may also be valuable in treating chronic alcoholism.

Two representative cases are reported. A 19-year-old colored male who had been addicted to the use of intravenous heroin for at least three years, had acute and severe withdrawal symptoms that did not respond satisfactorily to two days of treatment with methadon (5 mg. every six hours) and chloral hydrate (at bedtime). He was then given intramuscular injections of 200 mg. of testosterone propionate and of a mixture containing 2 ml. of crude liver extract and vitamin B complex and an intravenous injection of 1,000 mg. of vitamin C. Seven minutes after the last injection, all acute withdrawal symptoms were relieved and the severe abstinence syndrome disappeared. The patient felt well throughout the day, slept well that night with the use of chloral hydrate and one dose of methadon, and was free of symptoms for the next eight days without receiving any further medication. Late withdrawal symptoms set in eight days after the above treatment, and he could not sleep and felt sluggish. He retained his craving for heroin except for the first few hours after the hormone and the vitamins were administered.

The second patient was an 18-year-old colored female addicted to heroin sniffing for four years and to intravenous heroin for at least one year. She had acute withdrawal symptoms, namely, generalized weakness, tiredness, and lack of interest. Upper respiratory symptoms were observed. All of these symptoms were still present three months after readmission, at which time she was given 25 mg. of testosterone propionate, 0.66 mg. of crystalline estradiol benzoate, and vitamin B intramuscularly. Although immediate relief was not noted, the upper respiratory symptoms disappeared within three days, the patient felt well, appetite improved, and sexual desire returned to normal. This treatment did not affect craving for heroin. Recurrence of the late withdrawal symptoms was not noted up to four weeks after the hormone-vitamin combination was given.

This combination was tried in four patients suffering from chronic alcoholism, and they have abstained from alcohol for 26 days up to 16 months.

(Upjohn Abstract)

Editor's note: That last single sentence paragraph! What combination, please?

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SEARLE

Topics of Current Medical Interest

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION OF THE BOARD OF REGENTS OF THE UNIVERSITY AND STATE COLLEGES OF ARIZONA

YOU WILL RECALL that at our meeting of May 12 you appointed a committee consisting of Regents Morris, Bradford, yourself and Babbitt to investigate the possibility and desirability of establishing a medical school in Arizona.

Since that time, your committee has availed itself of a great volume of information on the subject. This information includes reports from qualified authorities and much information from other states — both those that have schools and those that do not. Of great interest in particular are states such as Florida, which has only recently established a school after years of consideration of the problem, and New Mexico, which decided against a school after having considered the possibility very seriously.

Of very great value to the committee was a hearing held July 11 in the Regents Room at Arizona State College at Flagstaff. We are sure that a majority of the most interested and best qualified authorities in the state on the subject were present and testified. Attached hereto and made a part of this report is a transcript of that hearing.

The first question that the committee concerned itself with was — need. Is there a strong and immediate need for a medical school in our state, or is it something that may be desirable but is not immediately pressing?

During the hearing there was not anyone present who testified as to the general statewide shortage of doctors in Arizona. Even though there may be a shortage in some rural areas, it is difficult to believe that an increase of a few points of our doctor-population ratio would correct this situation.

While it is true that Arizona is somewhat below the national average in doctors per 100,000 population, still there are 19 states that have a lower ratio than Arizona in spite of the fact that we have a large Indian reservation population. Furthermore, there is a surprising lack of evidence that the existence of a medical school in any state's boundaries results in a higher doctor ratio. This seems to be particularly true of two-year schools. There are only three two-year schools in the United States as compared to 85 four-year schools, so the figures may not be too meaningful; but it is surprising to note that in two of the three states having two-year schools, their doctor ratio is much lower than Arizona's (Arizona 104 vs. North Dakota 77 and South Dakota 79).

These low ratios would undoubtedly also prevail if those two states did not have medical schools; however, there is an interesting possibility that Arizona might actually have less doctors practicing if it had a medical school than it would have without one. At the present time, our students have available to them the benefits of Arizona's participation in the Western Interstate Compact for Higher Education (WICHE). By law, the participating students are required to return to Arizona to practice for as many years as they have benefited from the WICHE program or be penalized financially very substantially. This requirement would undoubtedly not be exacted of students of our own medical school.

Should a serious shortage of doctors ever occur in Arizona, public opinion would undoubtedly force a change in our doctor licensing requirements in the form of greater reciprocity with other states and a change in our basic science requirement. We are sure this would bring Arizona immediate and ample relief.

Another major factor as regards the need of a medical school in Arizona is the question of the cost of a medical education to an Arizona student. There has been an assumption on the part of some persons that the establishment of a school would automatically mean a free medical education for our students. This is not the case.

At the present time, under the WICHE program, a student is required to pay in-state fees to whatever out-of-state institution he attends. If Arizona had a medical school, this situation would be the same — he would have to pay to Arizona the in-state fees. The matter of a student living out of state while at school is admittedly costly, but any Arizona student who did not live within easy commuting distance of whichever Arizona community should be chosen

as a school location, would also be faced with the expense of living away from home.

WICHE and Money

Still a further argument as to the need for a medical school in Arizona at this time is the feeling by some persons that WICHE will not have enough openings in the compact states having medical schools to accommodate all of the qualified Arizona applicants. This situation may well be upon us eventually, but the committee did not receive concrete evidence that it is here yet or will be for some years. It is a situation that must be watched, but it does not appear that a great number of Arizona students will find themselves unable to benefit under the WICHE program without the state having ample time to remedy the situation by other means.

A means used in some states that do not have a medical school is the establishment of state scholarships to needy students. This is particularly effective because most states having schools tend to favor the students of states not having medical schools.

The committee feels that, in addition to "need," the other major consideration as regards the establishment of a medical school in Arizona is the state's ability to stand the financial impact of a school.

At the committee hearing at Flagstaff, no one present testified that the state is now financially able to undertake the establishment of a four-year school. The capital expenditure required for a four-year institution was variously estimated at from $10-$30 million and the operating costs at around $1 million a year. These figures are in general agreement with those received from other sources.

The committee agrees with the testimony at the hearing that the establishment of a four-year medical school in Arizona is not feasible at this time.

Probably the most generally mentioned figure as to the capital cost for a two-year school was $3 million-$4 million and an operating cost of $300,000 to $400,000 per year.

In considering the advisability of the state spending such a sum, the committee believes that the current needs of higher education in the state should come first and that the financial demands of even a two-year medical school should definitely not be at the expense of our current program.

To make clear the position of our institutions of higher learning as regards current financial needs is important. In the year 1948-49, the total operating budget for our three institutions was $5,033,286. The year 1957-58 required a budget of $13,092,100, and the budget to be presented to the forthcoming legislature may well be several million dollars higher than this latter figure. During the same 10-year period, total enrollments rose from 9,661 to 16,786. It seems probable that even this rate of growth may accelerate. In addition, the three institutions spent $32,168,-900 for capital requirements from 1946 to date and there is no end in sight for these demands. We are currently facing capital demands that will probably reach $20 million for our existing programs.

While it is the legislature's problem, we are, however, also mindful of the mounting critical demands of our other state institutions, such as the state hospital, state prison, Fort Grant, children's colony, and the school for the deaf and blind.

If the expenditure of these vast sums had brought our higher educational system up to an average position, the situation would not be so serious, but this is not the case. At the University of Arizona, professors, during the 1957-58 academic year, were paid about $1,900 less than the average professor's salary of public supported universities of the size of our university.

Of the land grant institutions of the country, our university ranked last in the amount of total educational and general income per student enrolled. At the state college at Tempe, the situation is no better. In spite of the Regent's best efforts to reduce it, the faculty student ratio has been high to the point of endangering accreditation. In salaries its scale is even lower than the university's. Furthermore, our institutions have not had the chance to consolidate the vast increases in schools, courses, majors and degrees that the Regents have showered on them these past few years.

It is the opinion of the committee that no further major expansion in other fields should be undertaken by any of our institutions until this consolidation of their financial positions has taken place.

It is interesting to note that West Virginia, ranking as it does in both population and wealth, found it necessary to impose a sales tax on soft

drinks to finance its medical school.

Location and Program

Apart from the money consideration, the committee takes cognizance of the fact that there is a substantial difference of opinion as to the future place of two-year medical schools. Proponents claim that they fill a very definite need in providing instruction for the first two years of so-called basic science instruction. They further point out that because there are fewer students in the upper classes of four-year schools, the two-year schools, by providing additional upperclassmen, can balance out the class enrollments of the four-year schools.

Opponents point to the tendency by some schools to limit the number of transfer students; also, they maintain that the average or below average student who has finished a two-year school might well incur difficulty transferring to a four-year school.

A more serious claim is that medical education is changing rapidly from a situation where two years were devoted to the basic sciences and the next two years to clinical study, to a situation where clinical training is incorporated in a student's curriculum from the day he enters medical school. Under this latter situation, hospital and patient facilities would have to be available to all students. This we believe would involve either a school hospital or a working relationship with a hospital that would involve school control of the hospital staff and a contract with the hospital for the use of patients for medical student purposes.

None of the members of your committee have training to qualify themselves as experts in making technical decisions with regard to those problems. This points to the desirability of having an out-of-state authoritative group or body make a study of all facets of our problem. We believe that such a body might logically be the Association of American Medical Schools.

Once Arizona does decide to embark on some type of medical school, there can be no retreat. There can be no continuing modest program or any program that will be largely dependent upon private gifts. The committee is most grateful for the offer of several generous grants, but we feel that it would be imprudent to set up a program that would require private donations to support more than a minor part of the cost of initiating and continuing any medical program. We cannot afford to give our medical students a mediocre, inexpensive education. Millions of dollars of state funds will be required for any Arizona program.

A further problem that has come to the attention of the committee is the selection of a site for a school. The university at Tucson feels that it should have the medical school when one is established because of its extensive experience in teaching some of the basic sciences and closely related sciences required of a medical education. The state college at Tempe feels that it should be the location for the school because of its proximity to the state's center of population and also because it has been offered some very generous money grants.

The committee does not feel that any of these claims are in themselves conclusive and that here again a well qualified out-of-state body or group should go into every phase of the desirability of one location as against another.

Florida was successful in obtaining a grant of $96,500 from the Commonwealth Fund of New York to make a study of the situation in that state before it established a school. Arizona may well be able to obtain money from this or other funds. Certainly there is not such haste involved as to penalize us for trying. A small amount of time and money invested now in an authoritative report, we are sure, would pay large dividends.

Summary

The following is a summary of our conclusions:

1. There is not a serious statewide shortage of doctors in Arizona.

2. The committee does not feel that there is an urgent and immediate need for a medical school in Arizona.

3. The committee does feel that Arizona medical students have a satisfactory opportunity to obtain a good medical education at well established universities at moderate cost through the provisions of WICHE — particularly since these provisions were liberalized by the last legislature.

4. The committee feels that it is out of the question to establish a four-year medical school in Arizona now or in the near future because of the tremendous expense involved.

5. The committee feels that the state should not undertake the cost of a two-year medical

school at the expense of other higher educational fields now existing in Arizona.

6. The committee feels that before a two-year medical school is started in Arizona, the educational value of such a school be evaluated by an out-of-state authoritative group or body. We believe that the current trend to incorporate clinical training in the first two years would justify this recommendation. Also, the very definite minority of their existing numbers — three out of 88 medical schools — leads the committee to question their educational standing.

Respectfully submitted,

/s/ John G. Babbitt

JOHN G. BABBITT, Chairman,
Medical School Committee

of the Board of Regents of the
University and State Colleges

Sept. 6, 1958

Funds For Study

This report by the committee on medical education was accepted by the Board of Regents. The board also adopted a resolution authorizing Dr. J. Byron McCormick, adviser to the board, to pursue the possibility of obtaining funds to be used by the board to investigate the necessity and desirability of establishing a medical school in Arizona, and to inquire as to what body might be considered to be the most authoritative and effective in making a thorough study of the problem. Dr. McCormick will report back to the Board of Regents.

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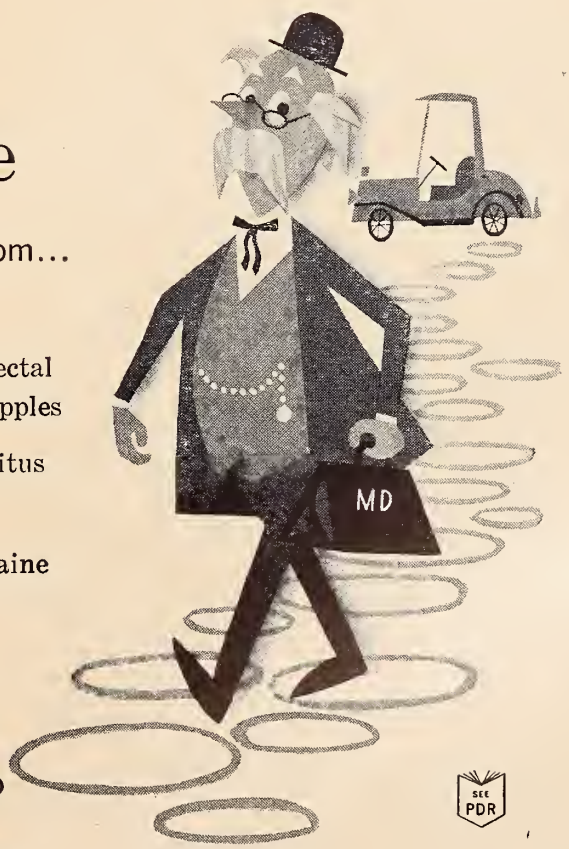
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A CRITICAL LOOK AT MEDICAL EDUCATION IN THE UNITED STATES WITH COMMENTS ON THE ROLE OF THE "SPECIALTY BOARDS"*

By Russell Meyers, M.D., F.A.C.S.

AN ECLECTIC view of medical education makes it apparent that the education of a physician begins early in the preschool period and continues throughout all the years of his practice. Beyond the internship his education may or may not include a residency, fellowship, and formal courses of postgraduate study; but it is, in any case, certain to include the widening of experience and maturing of judgment engendered by daily practice, the reading of medical literature, frequent contacts and consultations with fellow practitioners, and attendance at hospital rounds, staff, and society meetings. This is, in essence, a deterministic concept, and its adoption carries important heuristic implications for what follows in this article, not the least of which is that any serious effort to improve the training of physicians must contemplate going well beyond the content and form of current-day premedical, medical, paramedical, and postgraduate programs and penetrating boldly into general education and the broad sociopoliticoeconomic milieu in which the latter is set (1).

Let us preface our inquiry into medical education in the United States by recalling the traditional ideals that have for many centuries constituted the *vade mecum* of the practitioner of Western medicine, viz., the preservation of the patient's life for as long as possible; the achievement of optimal function in health and disease; and the giving of comfort and assurance to those who stand in sorrow and pain. These ideals, often loosely referred to as the "philosophy" of medicine, subtend medical education no less than the actual practice of the art for medical education manifestly aims to produce practitioners capable of effectively pursuing these goals.

Our difficulties as teachers of medicine and allied subjects develop as soon as we attempt to translate these laudable general aims into particulars. Mindful, as we are, of the ever present necessities of economizing time, energy, money, and available facilities, we see that virtually all our problems in pedagogy revolve around two questions: (a) Just what educative devices shall we employ in the effort to fashion practitioners capable of pursuing the stated goals? and (b) How shall we satisfy ourselves that the devices adopted do constitute "the best" pedagogy under the prevailing circumstances?

In contemplation of the numerous present-day endeavors to deal with these questions, certain recurring errors of omission and commission become apparent to the detached observer. It is no exaggeration to say that in the course of a single year the sensitive critic, observing the verbal and non-verbal behavior of his students, his colleagues, and himself, can collect hundreds of "horrible examples" — the consequences of defections in the exercise of scientific method and established principles of general education. The limited time at our disposal precludes the citation *in extenso* of such documented episodes (1) as might render the present essay convincing to the more incredulous among us. Fortunately, many readers will be able, upon review of their own experiences, readily to furnish their own examples. (To those teachers barren of such experiences, the rest of us offer warmest congratulations and express the wish that their good fortune may long continue!)

But the mere collection of incidents that thus exemplify departures from sound educational procedures is not likely to advance our cause very much. At best, such might be counted upon to suggest specific measures to be adopted for the recurrences of specific incidents. What we might more profitably address ourselves to is the identification of the *principles they exhibit in common* — principles which, being honored or dishonored, have inevitable consequences for good or ill in our day-by-day activity. To this end, the writer proposes to categorize the more obvious departures in principle, as he sees them; to draw inferences as to their more conspicuous effects; and, where possible, to suggest measures looking toward their emendation. Eight such categories have been set up, among which the reader will no doubt be able to discern certain overlapping features: (1) unrealistic concepts on the part of teachers and administrators re-

*Portion of a paper entitled "The Search for Better Ways: A Critical Look at Medical Education," presented at the 52nd annual Congress on Medical Education and Licensure of the American Medical Association, Chicago, Ill., Feb. 13, 1956.

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The author is chairman of the Division of Neurosurgery, State University of Iowa Hospitals, Iowa City, Iowa.

garding the motivation of premedical and medical students; (2) failure to exercise scientific method wherever and whenever applicable; (3) unfamiliarity with the principles of the psychology of learning, communication and information theory, general semantics, and group dynamics; (4) the naive acceptance and exercise of certain inept "guiding principles" of education; (5) inordinate faith in committee actions; (6) untoward effects on "correlative teaching" engendered by problems of "pecking order" among the faculty; (7) failure deliberately to encourage the doubting and inquiring attitude and to foster creativity among students; and (8) the inept character of current "experiments" in medical education.

To deal with each of these as they deserve would require far more space than lies at our command. For this reason, the present paper will be limited to the issues subsumed by the last-listed category — "the inept character of current 'experiments' in medical education."

Until quite recently and, for that matter, up to the present time in many medical schools, curriculum committees have been largely pre-occupied with (a) the most advantageous sequential arrangement of the various "subjects" considered essential to an "adequate" medical education and (b) the allotment of the "properly proportionate" number of hours to the several departments charged with the responsibility of teaching the conventional subjects of the medical curriculum. Viewed in broad perspective, such endeavors, while not altogether fatuous and certainly not wholly dispensable, appear to constitute relatively trivial problems as compared with those that await serious attention. Within recent years, however, owing to a growing awareness of the need to improve medical education, curriculum committees and administrators at a number of progressively oriented schools have entered upon a phase of activity which they have chosen to call "experimental research" in medical education. In general, these projects may be said to aim at the following:

1. Effecting a "correlation" or "integration" of subjects.

2. Developing "responsibility" in the student.

3. Employing extramural facilities in one or more of the following forms as part of the effort to minimize teaching by lecture and precept and to maximize "learning by experiencing."

(a) Partial return to the general practitioner-preceptor system.

(b) Domiciliary care of the patient (following clinical and hospital care).

(c) Regional hospital-medical-school program.

(d) Family health adviser program (emphasizing preventive as well as therapeutic advice on all matters relative to health, including socio-economic and psychologic issues).

4. Developing a "patient-oriented," as contrasted with the conventional "physician-oriented," teaching institution (i.e., utilizing the university-at-large in patient care).

5. Training medical teachers in general and special peadagogic principles.

6. Determining the most effective distribution of teaching exercises assigned to part-time and full-time teachers.

These endeavors, stemming from hypothetic postulates, have been characterized by much busy activity, by enlistment of the moral and financial support of several philanthropic foundations and governmental agencies, and by a considerable amount of publicity.

Manifestly, such "experiments" should not be regarded as ends in themselves but as potential means to an end, namely, that of achieving improvement or progress in the production of well-qualified physicians. But a serious difficulty inherent in all experiments thus far instituted is encountered as soon as the inquirer attempts to break through the vague concepts of "improvement" and "progress" to reach a clear delineation of the *particulars* encompassed by the terms and of the *means* by which it is hoped they may be reached. A similar comment holds with regard to the oft and lightly used term "well-qualified physician."

It will perhaps be readily acknowledged at the outset that *changes per se* in the curriculum provide no guaranty that the medical schools will produce physicians better able than their predecessors to implement the traditional ideals of medical practice. A "felt need" (Dewey) for improving medical practice now exists — and this is certainly a necessary precondition of achieving "progress"; but what experimenters have not yet done is to bring the details of the felt need into focus so that their inquiries may be prosecuted with a reasonable expectation of ultimately reaching positive or recognizably negative results.

Conspicuously lacking in the various "experiments" in medical education currently in process are the following prerequisites of rewarding investigation:

1. Unambiguous statements, particular as well as general, of the conceptualized *desirable state of affairs.*

2. A clear delineation of *the present state of affairs,* identifying especially those respects in which the present appears to fall short of the desirable state.

3. The adoption, however tentative, of self-consistent *hypotheses and implementing devices* by which a movement from the present to the desirable state of affairs may be accomplished.

4. The possession of *a means of measurement* by which it may be determined that the movement intended has or has not been effected (and, if so, how much), so that the investigator may in time decide what needs further to be done to approximate more closely the desirable state of affairs.

In brief, experimenters in medical education appear thus far to have been mainly "solution-centered" rather than "problem-centered," in that they have not yet stipulated precisely what is meant by "a good practitioner"; have developed no yardstick(s) for measuring whether or not this goal has been, or is being, reached; have arranged no "extensional bargains" among themselves by which their data may lead to the resolution of the basic issues in the foreseeable future; and have conspicuously failed to observe the necessities for *control* as well as *experimental groups* and for relatively *unbiased evaluators* charged with the responsible task of scrutinizing the data and reporting the results.

In any ordinary inquiry, such omissions would be gravely deplored, especially if, as in the matter under discussion, it appeared at all feasible to meet the basic conditions of sound experimental procedure. Far from having come to grips with the problem of experimental design, it almost seems that we have unconsciously contrived that we should experience no need to give an ultimate account to anyone — least of all ourselves — regarding students who, in consequence of the exercise of our arbitrarily adopted criteria and supposedly enlightened programs, have failed to "make the grade" and have thus been eliminated from medical practice. Equally important, we possess no means by which reliable predictions can possible be reached regarding the effectiveness of recommended courses of instruction for actually improving the performance of the physicians *in his community.* A single pilot inquiry in this direction has recently been conducted in North Carolina by Dr. Osler Peterson (2), but beyond this commendable effort, our current *modus operandi* does not promise to yield us, now or in the future, the solid knowledge we need and seemingly earnestly seek. In view of this melancholy circumstance, our more enlightened "experiments" in medical education should more accurately be described as *innovations* and complicated ways of exercising intuition than as scientific research.

Surely, if any one course of training is ever to be recommended as "better" than another of the past or present, it will be because the data accumulated under rigorously controlled conditions unequivocally reveal that, other variables being constant, a high correlation exists between the implementation of that course (with all its inherent predictions) and the recognizable development of "better" physicians. This statement is but a basic rubric of epistemology. In our professional pursuits other than pedagogic (relative to which our properly cautiously phrased conclusions often affect human welfare to but a negligible degree) we are content with nothing less than the faithful exercise of rigorous criteria. The price of serious departure from them is high and includes the possibility of loss of professional esteem and status. Why, then, should we be less insistent upon their exercise in so humanly vibrant and far-reaching an issue as medical education?

How far we are as yet removed from a demonstration of the *predictive capacity* of our present criteria and prescribed courses of training, orthodox and novel, can be appreciated by contemplating the circumstances that obtain in regard to the minimal requirements of (a) the premedical course; (b) the medical course; and (c) courses of postgraduate training leading to certification by the American "specialty" boards.

The Premedical Course

Given that a candidate for admission to medical study obtains credit for the minimal hours stipulated by state law, organized medicine, and/or the medical college itself in respect of biology, physics, chemistry, social science, English, and foreign language, the decision to accept

or reject him is in most colleges reached in consideration of the following measures of evaluation: (a) biographical material, (b) college grades *general* grade point average and *science* grade point average), (c) nature of collegiate courses taken, (d) evaluation of the college attended (in full recognition of varying standards from school to school), (e) letters of recommendation from persons who know the applicant well, (f) personal interview(s), (g) health and emotional stability of the candidate, and (h) scores made on psychological tests (the General Aptitude Test Battery and the Medical College Admission Test).

The relative weight assigned to each of these criteria varies from college to college and, within a particular college, from year to year, depending on the makeup of the key members of the admissions committees. But, whatever the assigned weights, the intelligent layman interested in problems of premedical and medical education is inclined to assume that they are employed because, singly or in combination, they denote *reliable predictions* relative to the production of physicians competent to meet — and meet with high credit — the proclaimed ideals of the profession.

We are now obliged to ask, "What assurance are medical educators able to furnish the interested layman that this circumstance is indeed so?" The painful fact is that, with the exception of the college grades, no very appreciable positive correlation coefficient between the above-stipulated items and the student's performance during the *freshman year* in medicine has thus far been demonstrated (3). Still less has it been demonstrated that these customary measures of evaluation constitute a useful basis of prediction concerning the student's over-all performance during the *four years* at medical school and his much more important *later performance* as a practitioner of medicine. Although their usefulness is far from having yet been established, the measures referred to continue in general use and, correspondingly, affect to greater or lesser degrees of seriousness the lives of candidates (and their families) and, ultimately, the community of human-beings-at-large.

In our present arrangements, it is apparent that what Alan Gregg once aptly spoke of as the "late bloomer" at school generally fares poorly in consequence of the current impressionistic methods employed by academicians for predicting his future. As scientists and serious students of medical education, we must sooner or later ask ourselves quite candidly, "What is the fate not only of accepted but of rejected applicants; and how sure can we be that, as medical students and physicians, the rejected would not have 'succeeded' at least as well as those we have chosen to honor with admission to our medical colleges?" Unless we are prepared to answer questions of this sort, we shall find ourselves embarrassed in a culture rapidly becoming scientific.

We have prescribed, among other things, a course of premedical study, which for all practical purposes forces the candidate to "major" in biology, chemistry, and/or physics. Presumably, the reason underlying this is that we stand convinced that this and nothing less than this leads to the production of doctors best able to serve their fellow men in accord with the traditional ideals of medicine. But a vexing question arises in this connection: "How sure are we that students majoring, for example, in history, sociology, psychology, philosophy, mathematics or foreign languages would not fare as well — not only at medical college but in the later practice of medicine in their communities — as those who fulfill conventional requirements?" We do not possess data on this point. We simply do not know and are forced, when challenged directly on this score, to acknowledge that the best we can do in present circumstances is to make a "guided guess." Nevertheless, our day-by-day behavior implies (and often leads the uninformed layman to infer) that we *know* the answer.

Studies such as that recently completed by Morris (4) indicate that students who acquired during the premedical years credits in biology and chemistry considerably in excess of minimal requirements did not, in general, earn higher grades than their fellows who had met only minimal requirements and who had had a correspondingly greater exposure to other, non-science subjects. Dare we extrapolate further along the curve mapped out by such studies? Seemingly, the suggestion can be and is being given serious, if but tentative, consideration, for Rottersman (5) recently drew attention to the fact that some American medical schools have accepted students offering principally humanities credits.

The Medical Course

Since the issues involved in the foregoing discussion regarding the premedical course hold with equal force here, the matter of the medical course can in principle be dispensed with quickly. We may say in brief summary that, so far, no correlational studies have been projected by which the student's performances in medical school, as judged by the general and special ratings assigned him by his various instructors, may be made a reliable forecast of his later performance as a practitioner of medicine. It is lamentable enough that we do not have the data that might provide needed confidence in our current prescriptions for medical education; but what lays us open to most serious censure is that we possess neither the machinery, the competent long-view plans, nor the *intention* to implement the studies necessary for acquiring those data. How does it happen that this circumstance obtains, and why should it be so? Here is an area of inquiry wide open for the brave and the bold to explore.

Courses of Postgraduate Training Leading to Certification by American Specialty Boards

We shall find that the circumstances pertinent to discussion on these, the most advanced stages of medical education, do not differ in principle from those already depicted in relation to the premedical and medical courses.

Example: A well-esteemed member of the surgical fraternity (6) recently asserted that, after 20 years of experience with the American Board of Surgery, "we now know" that to produce a competent surgeon requires a minimum of three years in surgical residency followed by two years in independent practice or, better still, four years in residency, with or without the additional practice.

This statement, made as it was without reservation, reflected a confidence on the part of the speaker not wholly shared by all engaged in the training of residents. Inquiry soon revealed that the data supporting this conviction amount to the *ratings* given the candidates by the examiners of the American Board of Surgery. The board representative, in an endeavor to answer the next question as to just what is meant by a "competent surgeon," asserted, "one whom you or I would let operate upon our wives." As this was obviously not intended to be a facetious statement, the listener could not fail to recognize its highly intuitive character and to remark that precisely here was the weak link in the speaker's chain of polemics. For, given this criterion, one is next obliged to ask whether every surgeon who finds himself under the necessity of making such a decision would agree that a given man, Dr. X., is competent to operate on his wife. Differences of opinion on such matters are not uncommon and are, in point of fact, to be expected. What follows, for example, if Dr. A. says, "Dr. X for Mrs. B? Never!" To what is the detached observer now to appeal in the important matter of deciding Dr. X's "competence"?

The skeptic, listening to such tenuous defenses of proposition and unimpressed by authoritarian statements as such, feels impelled to question just what it is that the "American Board of Surgery" claims to "know" — reliably — about the requisites for training a "competent surgeon" and what evidence, beyond the current predilections and intuitions of its members, it is prepared to exhibit in support of its contention.

We may disregard for the moment the dubious reliability of establishing a rank order of the performances of candidates for certification in general surgery by adding up and averaging the arbitrary grades assigned them by *different* surgeons delegated to act as examiners at particular times and particular sections of the country. We may likewise disregard the circumstantial inevitability that each such examiner (or pair of examiners) possesses his own predilections, prejudices, and value systems and his own intuitional habits of assigning grades on both written and oral examinations; that he not infrequently holds views on surgical subjects that are unmistakably antithetic to those of other surgeons; that he is under no constraint to use the same battery of questions from one candidate to another in the oral examinations, much less that a standardization be worked out from year to year; and that the examiners themselves occasionally acknowledge off the record that, if forced to take the examinations, they might not do uniformly well.

Let us confine our attention, instead, to the authoritative announcement that "we now know that to produce a competent surgeon . . . etc." to be *operationally* meaningful, such a statement would require an unambiguous demonstration not only of the fact that, in general, those candidates who have pursued the prescribed courses of training do better on the board's examinations than those otherwise trained, but that *they also*

do better as practicing surgeons in their communities — three, five, 10 or more years later. For surely, since the mere attainment of creditable grades on the examinations does not in itself constitute the end sought in the training of a surgeon, relative standings based upon average grades cannot be accepted as the final criterion as to the *effectiveness* of the course — especially since, with minor exceptions, those with backgrounds other than specified by the board are *excluded* from examinations or are, in effect, penalized or otherwise discouraged by having to await admission to examination for an appreciably longer period than that required of candidates who meet standard requirements.

The situation is not appreciably resolved by assurances given by the board that, in addition to the examination, information bearing on the candidate's qualifications is obtained by corresponding with his past professional associates and with surgeons currently in his geographic area. For aside from the fallible potentials inherent in such information and from the very important question as to the actual qualifications of neighbor-surgeons not controlled by the board to evaluate the candidate, the vitiating circumstance is that all such reports are collected *before* the certificate is issued, usually prior to the date of examination. A little reflection makes it clear that the scientific value of such impressionistic and intuitively engendered letters, like the rank order of grades on the examinations, *inheres solely in their predictive content.* Therefore, they can be accepted as useful data only insofar as their inherent predictions are borne out of evaluations of the *subsequent performance* of the surgeon in his community. But do we now have such correlations? Is any systematic inquiry now under way, or being planned, by which we may in time reasonably expect to arrive at them? If the answers to these questions are in the negative, as they must perforce be, is it not apparent that what the board asserts it *knows* is not an established fact at all, but a mere postulate, and a very debatable one at that? (See Fig. 1.)

This prompts us to recall the principal purpose of tests of all kinds in the fields of education and qualification. Their aim is simply to permit the examiner (and those who repose faith in his conclusions to *predict* as economically as possible (in terms of the expenditure of time, effort, materials, and money) what the likely *later* performance of the examinee will be in certain realms of action. The test cannot and should not be regarded as a means of divining information about the candidate which is not capable of being uncovered by other procedures, e.g., long-sustained observation and consensus evaluation by a number of observers, whose individual prejudices may be expected largely to cancel themselves out. Such pragmatic observations and the evaluations and predictions made possible by them constitute, in point of fact, the ultimate and sole useful criteria to which we may turn — those to which all other criteria must, if they are to be operationally meaningful, refer.

Examinations come into use because it is generally uneconomical and not infrequently awkward to arrange for sustained observations and to avert the difficulties that arise from too few observers and evaluators. But, to be accepted as useful, *a test must test what it purports to test, hence, must itself be tested in order to es-*

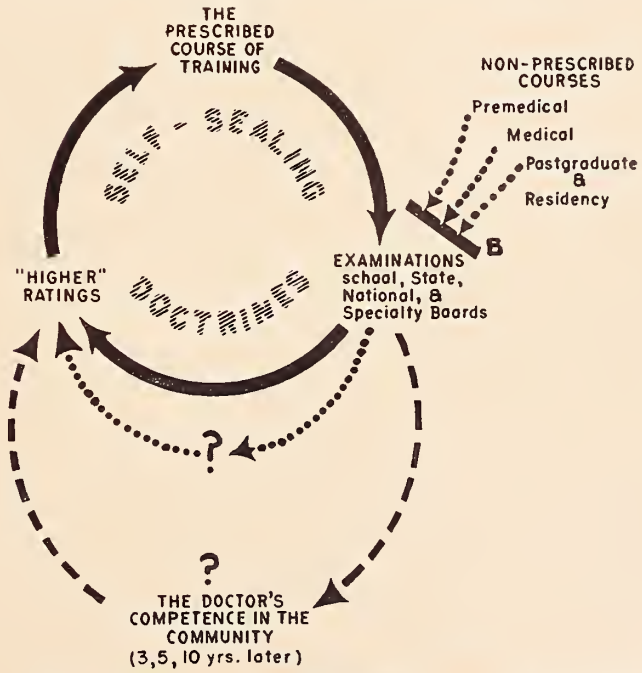


Fig. 1 — Diagram to illustrate present methods of proceeding (solid lines) and what the writer envisions as the procedure necessary to provide us with valid answers concerning the relative merits of prescribed courses of training at the three conventional levels of medical education (dotted and segmented lines). In our present methods we have unwittingly set up a self-sealing, circular doctrine, employing "higher" grades on the examinations as conclusive evidence in support of perpetuating the courses initially prescribed. "Higher" here can mean little in an epistemologic sense, since, with few exceptions, we bar (B) from examination those who lack stipulated prerequisites to taking the examination. To overcome this difficulty, we should be obliged, logically and empirically, to admit candidates from other-than-prescribed courses and examine them without prejudice. In any case, unless examinations are to be considered ends in themselves, we must ultimately determine the competence of a physician on the scene of action in his community, preferably periodically, as with licenses for driving vehicles, dispensing milk, and conducting restaurants; and then attempt to demonstrate in retrospect relationships between the preparatory courses, rating on examinations, and performances in the community. If we do not do this or if, after serious trial, it should prove impossible or infeasible to do it, we shall not be warranted in claiming we "know" what constitutes a or the "proper course of training."

tablish whether it serves in the capacity intended. This means that if an examination is to be used as substitute, in whole or part, for sustained observation, the results (score, percentile rank, etc.) must somehow be checked and rechecked against the evaluations of observers on the scenes of action, so as to determine the correlation coefficients that obtain between the two sources of data (7). Where the test results correlate poorly with evaluations reached on the living scene, the items of the test must be modified — again and again, if necessary — until high scores on the test are made by the superior performers in pragmatic situations, low scores by inferior performers, and intermediate scores by performers of intermediate ability. Then and only then can confidence be reposed in the predictive content of test scores attained by candidates of whose every-day performances the examiner remains uniformed. This has been the history of the Binet-Simon and numerous other tests usefully employed in psychology and education.

Accordingly, it is naive in the extreme to believe, as many medical teachers apparently do, that tests in this area can be "objective" in the sense of being wholly invariant to experienced observers. It is no less naive to place undue faith in scores made for certification in surgery on tests which have never been tested. "The word," as Korzybski (8) has so often warned us, "is not the thing."

A second case in point may be found in the recent ruling of the American Board of Neurological Surgery, by which one year was gratuitously added to the formal residency training period. As of 1956, the candidate for certification is required to spend four years (previously three) under the aegis of a neurosurgical division, at least two of which must be in one institution, preferably consecutively. These requirements stand, of course in addition to the previous requirements calling for a year's internship, a minimum of one year in general surgery, and after completion of the formal period of training in residence, at least two years of independent practice.

The announced purposes of the American Board of Neurological Surgery are (a) the investigation and examination of candidates for certification as bona fide specialists and (b) the review and evaluation of residency training programs, to assure that the trainee will be given an "adequate and well rounded training" (9). The board has decided that some training hospitals do not offer well-rounded programs (as it envisions them) and, in addition, has decided that, beginning in 1956, preceptor training will not be recognized as meeting its stipulations. It stands convinced that "some standard of measurement must be established for the average man" (without operationally stipulating what is meant by this term and by what devices it arrived at the notion) and to this end has decreed that, of the 48 months in residency on the neurosurgical service, the candidate must spend 30 in clinical neurosurgery and must perform a minimum of 200 operations, of which 25 are brain tumors. (Precisely how these figures were arrived at remains unexplicated.)

The board points with some measure of pride to the latitude it has provided the directors of training programs in respect of 18 of the 48 months the candidate is required to spend under the aegis of the neurosurgical division. With this proviso, the period can, at the discretion of the director, be spent by the resident in the further pursuit of clinical neurosurgery or general surgery; or in neurology, neuroanatomy, neurophysiology, investigative work, neuropathology, etc. — alone or in some chosen combination. Despite the elasticity of this provision, however, the basic issue at stake persists, for the board has manifestly gone beyond its primary task of examining candidates and has entered the realm of education, by stipulating what must be the essential features of the student's training — e.g., a year in general surgery, 30 months in clinical neurosurgery, two years in clinical neurosurgery in a single institution, a minimum number of surgical operations, etc.

Briefs in rationalistic defense of the adoption of these criteria have, of course, been formulated by the members of the board; and the most influential of the several neurosurgical societies, prompted by one of its senior members, gave a blanket vote of confidence to the American Board of Neurological Surgery while it was yet contemplating announcement of the new requirement for an additional year's training. While these apologias appear impressive on the surface, they do not meet the bald fact that each such ex cathedra stipulation carries with it an implicit prediction, namely, that its fulfilment

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assures the fraternity of medical colleagues and the community of human beings that "better neurosurgeons" will be produced thereby and, conversely, that its omission or its substitution by some other training device will, in general, result in less competent neurosurgeons. Thus grave responsibility rests upon those who hand down decrees of this sort — a responsibility to furnish upon demand the empirical data that lead compellingly to the formulation, much as they would be responsible to furnish the coin of the realm to validate a bank draft. Needless to say, neither the American Board of Neurological Surgery nor any other body has such data. Like the American Board of Surgery, the neurosurgical board has acted on mere intuition, not in terms of what is "known."

This is nowhere more apparent than during discussions of the board's requirement calling for a year's training in general surgery prior to starting neurosurgery. The language used by advocates of this requirement clearly betrays immanent impressionism: "I believe . . .," "I am convinced . . .," "Dr. A. feels that it is worthwhile," "Neurosurgery is, after all surgery, and it stands to reason the trainee should know surgery." Following another tack, it is acknowledged by those who advocate the general surgical requirement that, while a neurosurgeon need not be expected to deal technologically with gallbladder and pancreatic disease, "he should spend a year on general surgery to learn about shock, wound healing, nutrition, electrolyte and water balance." Little consideration seems to be given to the possibility that the matters mentioned might be learned on the neurosurgical wards themselves and that the recognizably important matters of nutrition, electrolyte and water balance, etc., might be as readily apprehended on the medical service as on general surgery, so that a case might as easily be made out favoring a year on internal medicine as on general surgery.

Nor is serious consideration given to the *kind* of experience obtained by the neurosurgeon-to-be during his tour of duty on general surgery. His career destination being known by those on the general surgical service, he all too often becomes "low man on the totem pole" and performs duties that add no more to his general fund of information than could be provided by other medical services. The purposes of the board, ill defined as they are in this respect, appear to be met by the neurosurgical trainee if he merely fulfils the temporal requirement of one year on general surgery, even if he acquires during this period habits of retracting, sponging, achieving hemostasis, and handling tissues that must be broken when he moves on to the neurosurgical operating room.

Perhaps the most serious circumstances of all is that individual difference is aptitude and learning potentials among trainees are disregarded in favor of elementalistic temporal formulations that can be automatically implemented by the board sitting in solemn session. By the adoption of such simple mathematical formulations, the problem of determining the qualifications of a candidate becomes measurably *easier* for the board to resolve. This should not be taken to meant that the problem is, by the same token, *cogently* resolved.

Provided that a candidate meets the stipulations regarding approved resideney training; has had two years in independent practice; and can present letters of endorsement from associates, testifying to the absence of overt moral turpitude, the American Board of Neurological Surgery acknowledges and obligation to accept him for examination. But what of those with "irregular" training who seek certification? Here, matters are somewhat more difficult. In fairness to the board, it should be stated that its code carries a clause whereby it *may* accept for examination candidates who have not met all formal requirements. But serious penalties nevertheless inhere, for, in the first place, candidates with "irregular backgrounds" must have practiced neurosurgery for at least six years before being considered and, in the second, the board feels itself under no obligation to admit such persons to examination. In practice, extremely few "irregulars" are admitted to examination at all — too few, it should be noted, to permit a proper statistical comparison of their grades with those of the "regulars."

It is of no small significance that at the board examination held in New Haven in 1954, the unofficial highest over-all grade was said to have been made by a candidate whose training had been obtained under a single preceptor and who had no residency — approved or unapproved. Hence, if one is inclined to accept the examination as a competent instrument for eval-

uating candidates — a conviction obviously embraced by the board — there can be no escape from the conclusion that other roads to heaven exist in addition to that officially prescribed. In fact, there appears to be no sound reason why any penalty bearing on admission to examination should be imposed on "irregulars." If the superiority of the prescribed course, as compared with other courses of training, were to have been convincingly established in terms of scores obtained on examination *and* actual performance in the community, then a discrimination favoring those fulfilling the officially prescribed requirements might be warranted. However, such is not the case, and, until it becomes so, there is a certain danger in our accepting discrimination complacently.

Let us pause here to clarify our present position. In the first place, nothing in the foregoing should be construed to mean that the present critic is a "reactionary" whose desperate desire is to cling to "the old and tried ways" of medical education. Far from it! He earnestly believes that medical education can and should be improved, and to this end he strongly favors experimentation. That to which he desires to invite attention is the current flair for mere *innovation* and the wasteful *pseudo-experimentation* which passes for experimentation. In the second place, he is not of the opinion that *he* knows what courses of training should be implemented; what subjects are likely to prove most rewarding; and how much time needs to be spent on each of them at the premedical, medical-school, and postgraduate levels. (For all he knows, it might take much more or much less than conventionally prescribed in order to produce practitioners capable of attaining the high ideals of medicine, and it might even prove desirable that surgeons register for the Singer sewing course.) But, by the same token, he is not of the opinion that anyone else knows, and he feels a measure of disquietude when spurious claims, implicit or explicit, are made in this connection.

The issues of which we have been speaking arises from the appearance of such statements as the following:

The Board of Regents of the American College of Surgeons believes that the primary objective in the training of general surgeons is to qualify them to meet the responsibilities of the surgical care of patients. . . . Surgical proficiency sufficient to provide the best care for the patient demands, in addition to technical skill, a knowledge of and ability in the application of the basic sciences, co-ordinated with opportunity in most of the major surgical specialties, and intergrated in a program with increasing responsibility in the care of patients throughout the period of training. The Board of Regents believes that this type of training can only be acquired in a well-planned hospital program which meets the requirements of the American Medical Association, the American Board of Surgery and the American College of Surgeons, through their conference committee on graduate training in surgery. Participation by the Fellows in any other method of training future surgeons is contrary to the principles and declarations of the American College of Surgeons(10).

Little controversy is likely to be incited by the first two sentences of this pronunciamento. It is regarding the two latter sentences that some misgivings must be felt, for within them the danger of arbitrary, Jovian authoritarianism inheres. Specifically, it may be seriously questioned that the "only" manner in which the desirable results of surgical training can be acquired is the one prescribed. Considering the meager data that the American Medical Association, the American Board of Surgery, and the American College of Surgeons are able to adduce in this regard, there may be many equally good alternatives. In point of fact, many general surgeons enrolled and presumably approved as such in both the American Medical Association and the American College of Surgeons have acquired the skills they daily exercise in other ways than those now insisted upon.

There remains another, somewhat more subtle, issue. Initially, the American Board of Surgery and many other specialty boards envisioned their primary task to be that of examining and determining the *qualifications of individual candidates* who desired recognition as specialists in fact as opposed to specialists in name. Their laudable aim was to raise standards of performance in the various specialties for the ultimate general benefit of the public. So far, so good; but it was not long before the boards departed from their prime commitment. At first independently and later by joining official hands with the American Medical Association and the

American College of Surgeons, they entered the field of education and proceeded to set up arbitrary courses of training and educational standards which had to be faithfully met by candidates desiring certification at the earliest possible time. Although this move was largely unnoticed and was no doubt motivated by good intentions, it was, by any measure we can employ, an arrogant one. It heralded the circumstances that non-educational bodies, originally fashioned to pass on the qualifications of individuals, possessing neither the necessary machinery for, nor the serious intention of, determining the validity of their fiat, were now prescribing and proclaiming the method and the *only* method by which candidates were to be educated.

We repeat that, in the present circumstances, no one *knows* in an epistemologically meaningful sense precisely what the course of training should be for *any* specialty; that many alternatives are conceivable; and that the boards would do well if they were to confine their efforts to properly examining candidates (which in many instances they do not) rather than prescribe the devices by which the clinical skills they so vaguely envision are to be acquired. There can be no objection whatever to the boards' expressing *preferences.* Admittedly, a beginning has to be and should be made; and such beginning must necessarily consist of arbitrary features, more or less intuitively arrived at. But there is a wide difference between setting these features up as *preferences,* with the clear implication that they constitute but a tentative and highly hypothetical answer to questions relating to improving medical education, and uttering them as pontifications, from which there is little if any appeal. The logical consequence of adopting the former orientation is the resolution to test the validity of the hypothesis in accord with approved, rigorous methodology; nothing of the sort is prompted by adoption of the latter.

It would seem appropriate, therefore, that the boards should address themselves to the task to which they initially committed themselves. This is a big enough order as it is and, if it does not seem big enough, can be made bigger. For example, in the present *modus operandi,* the boards grant a certificate testifying to the competence of a specialist. The certificate carries an official seal, and the date of its issue is clearly set forth. But it is for the *life* of the recipient. Unless the latter commits a felony or other overt violation of the legal or moral code, he can continue to exhibit his certificate and claim all the "rights and privileges appertaining thereunto." There is, of course, no assurance that the specialist will keep up with the pace of medical advances and those of his own specialty. He could (and no doubt on occasion does) deteriorate in serious ways, for his organism is, after all, a dynamic process, ever in flux. But his certificate, being a static symbol, in no way reflects the changes in process and hence may be misleading and dangerous. The responsibility of the specialty boards might properly include *periodic evaluations* of the performances in the community of those who have once been certified, with the implied prerogative of recalling certificates whenever incompetence, as clearly delineated, develops.

Considering the dearth of evidence bearing on the relative merits of various courses of training, it would seem that dogma regarding the particular means by which those courses may and may not be implemented is gravely premature. It is, of course, possible that the writing of such prescriptions may eventually prove feasible, but, for the present, the boards would do well to remain problem-centered. Above all, they should avoid engaging themselves with problems of medical economics, e.g., to decide, as at least one board has quasi-officially decided, that the number of qualified specialists exceeds the number that can earn a "proper" living in the specialty, and be influenced thereby — to any degree in the determination of its policies regarding prerequisites of certification.

Proposal

The present article suggests that those engaged in experimentation in medical education appear in many instances not to have realized that in advising and implementing changes in the curriculum, we are currently at the stage of asking questions, not of providing answers. Our first proposal, accordingly, is that we should openly acknowledge the circumstance. The next step is to recognize that there might be other roads to heaven than those prescribed at the premedical, medical, and postgraduate-residency levels, respectively. Candor of this sort might free us *to experiment without bias* with other

courses and other modes of evaluation.

At this point we have come around full circle, for it becomes at once apparent that data accumulated in consequence of current innovations in medical education can have no scientific significance unless they can somehow be compared with data derived from other curriculums, conventional or novel. No amount of mathematizing, no amount of analysis by disinterested "statistical services," can render our present tenuous data convincing to the skeptic. To be useful, these data must at the very least be tied up with a clear delineation of what we are prepared to accept as the *operational* marks of a "competent physician" as revealed by some yardstick by which those high-order abstractions, "the competent physician," "the competent surgeon," "the competent urologist," "the competent dermatologist," etc., can be embodied and held up to the view of all who care to look. It is precisely this labor of love that we have been so skillfully evading.

Granted, the task is formidable; granted, it is loaded, in its potentials, with dynamite. But shall we conclude from the difficulties so manifestly inhering in it that the task is *impossible* of execution? Fifty years ago it was asserted by desperately minded "experts" that dependable tests for determining such complex matters as intelligence, emotional stability, musical ability, etc., are inconceivable and unattainable; yet, despite these misgivings, we now have just such tests, and, what is more, they are being made more reliable year by year. Scientists with a burning passion to know and proclaim that whereof they speak are unlikely to shrink from specters of the "impossible."

What is clearly necessary is that those concerned with research in medical education get together with colleagues in their own and other institutions for the express purpose of striking "extensional bargains," however tentative, bearing upon (a) particular goals, (b) the mechanisms by which it is hoped they may be reached, and (c) the yardsticks by which those mechanisms may be more or less "objectively" evaluated. The predictive content of all experiments must eventually be ascertained, or we shall never know whether we are improving or not.

If (as seems unlikely) extensional bargains of the sort here envisioned should prove in the end incapable of being reached, we should certainly have to resign ourselves to blundering along with the institutional methods that have characterized the past, acknowledging openly that our novel researches are, after all, merely another mode of exercising intuition. But the present writer is unconvinced that we need to surrender to any such Stygian gloom. Admittedly, it is difficult to press rigorous methodology into service, *but it can be done.* What is needed in our "experiments" in medical education is more, rather than less, scientific method.

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MEDICARE

DEPENDENTS' MEDICAL CARE PROGRAM
BRIEF OF THE PLAN OF THE SECRETARY OF DEFENSE

(To be co-ordinated with the secretary of health, education, and welfare and the director, bureau of the budget)

1. Require all eligible dependents who *live with their sponsors* to clear with appropriate designated uniformed service authorities to obtain special authority for civilian care. (Where uniformed service hospital facilities are available, commanders will be required to base decisions as to whether a certificate will be issued upon the capability of the hospital as determined by the surgeon.) Eligible dependents *who do not reside with their sponsors* are not required to obtain authority other than their identification cards. (DD Form 1173)

2. *Emergency medical care*, if authorized under the revised program, may be obtained from civilian sources by all eligible dependents without authority other than their identification cards. Physicians will be required to certify the emergency.

3. *Maternity care for eligible dependents*

a. *Residing apart from their sponsors* — may continue to obtain authorized medical care from civilian sources on the basis of their identification cards (DD Form 1173).

b. *Residing with their sponsors*

(1) second and third trimester patients, if under care of a civilian physician on Oct. 1, 1958, will be permitted to continue their care with the civilian physician. However, if for reason of change of station, or other reasons, a change of physician is made, dependents will be required to clear with appropriate designated uniformed service authorities for determination of whether care will be made available in a service facility, or whether special authorization will be given for civilian care.

4. Discontinue all service not clearly specified in the law for both those living with, and apart from, their sponsors:

a. Medical care ordinarily rendered on an outpatient basis:

(1) Injuries not requiring hospitalization.

(2) Termination visits (when one physician sees patient in his office and turns over to another physician for hospital care.)

(3) Pre- and post-surgical tests before and after hospitalization.

(4) Neonatal visits (two well baby visits following hospitalization).

b. Nervous and mental diseases.

(1) Acute emotional disorders.

c. Elective surgery.

5. Require commanders in areas having more than one medical service facility to establish a clearing point to assure that all service hospitals are used to the optimum.

The Arizona Medical Association, Inc. Medicare Committee and Medicare Adjudication Committee

IN JOINT meeting of the Medicare Committee and the Medicare Adjudication Committee of The Arizona Medical Association, Inc., called and held Friday, Aug. 22, 1958, for consideration of the new plan of the secretary of defense (above) dealing with the Medicare program, the following recommendation is submitted for council deliberation and immediate action.

It was moved by Doctor Stern, seconded by Doctor Barger and unanimously carried that the Medicare Adjudication Committee and the Medicare Committee of The Arizona Medical Association, Inc., recommend to the Council of The Arizona Medical Association, Inc., that its members render services to military dependents whether living with the military sponsor or not, *only* if authorization for the specific care required be certified first by appropriate designated uniformed service authority, except in bona fide emergencies. Such action to be effective on and after Oct. 1, 1958.

The above action was recommended by the joint committees following briefing on the "plan of the secretary of defense" designed to reduce Medicare expenditures. Reasons for this decision centered around the nebulous and ethereal definitions of "elective surgery" which will not be authorized. It was considered improper to place the individual physician or the fiscal administrator in the position of deciding whether or not care would be authorized, only to discover subsequently that payment would not be made. The allegation that improper use of Medicare has resulted in a mandate from congress to reduce this

expenditure makes this action desirable to place squarely on the military the decision as to whether or not their facilities should be utilized and whether or not civilian care is justified.

On approval of this action by council, the joint committees further recommend that wide distribution of such action be circulated among the military authorities, Arizona congressional representatives, AMA, state medical associations, our component societies, and other interested agencies.

The following letter expresses the viewpoint of The Arizona Medical Association, Inc., pertaining to operation changes contemplated by the department of defense associate with the Dependents' Medical Care Program.

Aug. 28, 1958

Re: Medicare Committee
Contract No. DA-49-007-MD-806

Paul I. Robinson,
Major General, MC
Executive Director,
Office for Dependents' Medical Care
Room 1601, Main Navy Building
Washington 25, D. C.

Dear General Robinson:

THE MEDICARE Committee and the Medicare Adjudication Committee of The Arizona Medical Association, Inc., met in joint session Friday, Aug. 22, 1958. The purpose of its meeting was to receive and review the report of its fiscal administrator (Arizona Blue Shield Medical Service), represented by Mr. L. Donald Lau, executive director of Blue Shield. His report related to the Pentagon conference held in Washington, D. C. Aug. 8, 1958 respecting operation changes contemplated by the department of defense associated with the Dependents' Medical Care Program. Due consideration was given to a brief of the plan submitted by the secretary of defense, with which you are familiar.

It appears the department of defense considers it under mandate of the congress to continue the Medicare program under PL 569, but under certain limitations designed to channel more dependents to military facilities. The stated purpose appears to be to assure that all service hospitals are used to the optimum and at the same time to attempt to hold the cost of the



program to somewhere near the original appropriation of $60 million. While The Arizona Medical Association, Inc., does not agree with the defense department's approach to the solution of the problem, this association, party to the aforementioned contract, wishes to assure the department of defense of its desire to co-operate.

Without expressing any opinion respecting the merit of the proposed revisions of the Medicare program, our association is alarmed by the possibility of serious administrative problems that might be created thereby. For illustration, our association is fearful that its members will either be in the position of spending too much time attempting to find out whether an applicant is eligible (whether he or she lives with the sponsor; whether he or she has consulted with the commander at the uniformed service hospital; whether the surgery contemplated would be considered elective or not, etc.) or will run the risk of treating ineligible applicants. Our association believes that such administrative determinations should more properly be made by the government in order that the work of the members of the association can be confined to medical care contemplated by the program.

It was based upon this thinking that, effective on and after Oct. 1, 1958, The Arizona Medical Association, Inc., is directing its members to render services to eligible military dependents, whether living with the military sponsor or not, *only* if authorization for the specific care required be certified first by appropriate designated uniformed service authority, excepting in bona fide emergencies. It will expect the department of defense adequately to provide for such certification.

Very truly yours,
THE ARIZONA MEDICAL ASSOCIATION, INC.
/s/ Leslie B. Smith, M.D.
LESLIE B. SMITH, M.D.,
Secretary

LBS:C:sm

cc: Walker W. Evans, Lt. Col., MSC, contracting officer, Office for Dependents' Medical Care, Washington, D. C.

Earl C. Lowry, Colonel, MC, professional director, ODMC.

Floyd L. Wergeland, Colonel, MC, assistant to the executive director, ODMC, Washington, D. C.

L. Donald Lau, executive director, Arizona Blue Shield Medical Service, Inc., fiscal administrator, Dependents' Medical Care Program, Phoenix, Ariz.

Paul B. Jarrett, M.D., chairman, Medicare committee, 2021 North Central Ave., Phoenix, Ariz.



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THE ARIZONA MEDICAL ASSOCIATION, INC.

APPOINTMENT OF SUBCOMMITTEE MEMBERSHIP COMPOSITE

THE following subcommittee chairmen were assigned, as indicated, and granted the privilege of appointing additional members, as may be necessary, to carry out the functions of the subcommittee:

(a) Cancer .....Robert B. Leonard, M.D
(b) Crippled children
.....Willard V. Ergenbright, M.D.
(c) General medicine
.....Daniel W. Kittridge Jr,. M.D.
(d) Geriatrics.....Lowell C. Wormley, M.D.
(e) Hard of hearing Joseph M. Kinkade, M.D.
(f) Maternal & child health
.....Milton C. M. Semoff, M.D.

(It is noted that the subcommittee on maternal and child health serves as a medical advisory committee to the Arizona State Department of Public Health.)

(g) Mental diseases....T. Richard Gregory, M.D.
(h) Seminars ..... (Not Assigned
(i) Tuberculosis.....Orin J. Farness, M.D.
(j) Venereal diseases..John M. Vivian, M.D.

SUBCOMMITTEE REPORTS

Cancer

In opening discussion, Doctor Schwartzmann referred to a copy of resolution before the board, adopted by the house of delegates of the association, May 3, 1958, pertaining to the proposed Arizona central cancer registry and particularly one of the directives contained therein reciting:

"... that in the establishment of this central control registry, the subcommittee on cancer of the professional board of The Arizona Medical Association, Inc., be empowered to assist in helping to formulate policies concerning the operation, and the use of the data collected by the central cancer registry."

Doctor Leonard reviewed the background leading up to the action taken by the house of delegates. It is proposed that the Arizona State Department of Health establish and maintain within its division of cancer control, with the co-operation of active support of both the hospitals and physicians of this state, a central cancer registry. Ultimately, it is desirable to make cancer a reportable disease similarly as is now required of certain contagious and infectious diseases which may require enabling legislation. While initially it is not anticipated any large expenditure of funds will be required, when the activity develops sufficient volume to make possible evaluation of statistics, etc., the health department in all probability will require a supplemental appropriation.

Doctor Leonard further stated that the set-up would be similar to that of other states, i.e. primarily a two-purpose registry: (1) to collect and evaluate statistics, and (2) from such evaluation, learn the cancer control factors in the state on two levels: (a) from an overall picture, and (b) from individual hospitals; and from such evaluation, eventually to bring corrective measures through the individual hospitals to more or less consolidate and unify the approach to cancer in the various hospitals so that at least the equivalent attack may be realized. It is anticipated such approach will be of tremendous aid toward improving the practice of medicine in the treatment and control of cancer.

Discussion ensued and questions were raised as to the possibility of (a) violation of privilege, and (b) affect upon individual physician liability (malpractice) insurance coverage arising out of the conduct of such registry. Unquestionably, these factors have been reviewed and considered by other states wherein such registries have been inaugurated; however, legal evaluation as pertains to such operation in Arizona appeared wise.

It was moved by Doctor Leonard, seconded by Doctor Wormley and unanimously carried that this board accept in principal the resolution presented (establishment of an Arizona central cancer registry), adopted by the house of delegates of this association, May 3, 1958; and that action as pertains to the implementation and pursuit of the directive to the subcommittee on cancer of this professional board, contained therein, be deferred, pending further report by Doctor Leonard to this board at its next meeting in answer to the several questions raised in discussion here today.

Continuing Files

Doctor Schwartzmann requested of each subcommittee chairman that a continuing and com-

plete file of the activities of each be developed to be used during the term of office of each such member and upon conclusion of such term, it was further directed that such file be turned over to the succeeding subcommittee chairman for his background information and continuing promulgation, thereby realizing continuity in operation.

Crippled Children

Doctor Ergenbright reported that he had lately received a copy of letter dated March 6, 1958, received from Merle E. Nott, executive director of the Arizona Society for Crippled Children and Adults, Inc., seeking in behalf of his organization, assistance in the establishment of a statewide case finding program by appointment of a medical advisory committee; also, a copy of a recent report by Ronald S. Haines, M.D., former chairman of this subcommittee. Obviously, nothing has been done in this matter; however, Doctor Ergenbright advised he will gather information and report at the next meeting.

Doctor Schwartzmann pointed out the many and varying crippled children's programs already being conducted in the several counties throughout the state resulting, in some instances, in confusion and duplication of effort. Patients presented for evaluation by one division or group on one day, re-appear at the clinics several days later for the same purpose, presented by another group. Coupled with this, it should be borne in mind all the other agencies engaged in similar effort, but representing other fields of diseases, each of whom may make like request once a precedent is established in organizing statewide medical advisory boards. This should be kept in mind when we next meet to receive Doctor Ergenbright's report and act thereon, stated the chairman. Possibly this is one of the most important items for discussion appearing on the agenda. With its many ramifications, the time has come for a thorough re-evaluation of the overall problem and a policy established on a state level. Doctor Ergenbright was requested to obtain all the information possible on the multitudinous agencies presently existing and in operation in this state — when they began functioning, their scope of operation, where their funds are obtained, etc. Further action was deferred pending receipt of this report.

At the suggestion of the Samuel Gompers Memorial Rehabilitation Center, it was reported that Dr. Henry H. Kessler, medical director of the Kessler Institute for Rehabilitation, Newark, N. J., will participate in the program of the annual meeting of the association to be held in Chandler, April 28 through May 2, 1959.

General Medicine

No report available in the absence of Dr. Daniel W. Kittredge Jr., subcommittee chairman of this section.

Doctor Kittredge, absent from the April 13, 1958 meeting of this board, by letter dated April 29, advised in the matter of "Standing Orders for Public Health Nurses," referred to his subcommittee for review and comment, "that both the public health nursing problem and the local health administration are problems of the state department of health and not under our jurisdiction." No further action indicated.

Whiplash

Following crystallization of Doctor Ross's thinking on the subject of "Whiplash," it was determined that this matter be referred to (a) the Arizona chapter — Western Orthopaedic Association, (b) the local society of neurologists or neuropsychiatrists, and (c) the neurosurgeons, requesting review and some definitive information relative thereto; then, effort will be made by the board to answer the problems from a general medical standpoint.

Hard of Hearing

No report available in the absence of Dr. Joseph M. Kinkaide, subcommittee chairman of this section.

Doctor Schwartzmann presented one item, in the absence of a division on the eye. The National Foundation for Eye Care and the American Medical Association oppose a proposal considered in an amendment to the social security law authorizing optometrists to determine blindness in public assistance cases. The American Optometric Association proposes that optometrists be authorized to make examinations for blindness in all governmental programs. The foundation repeated the argument that every time a person is declared blind by an optometrist alone, a chance is lost to determine a true medical cause of the blindness and to appraise chance of rehabilitation or cure. The AMA also urged that for the protection of patients, this authorization be dropped, as it feels ophthalmologists should be the ones to so determine.

It was regularly moved and unanimously carried that this matter be referred to council and

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possibly through council to the legislation committee, expressing support of the position of the American Medical Association in this instance.

Maternal and Child Health

Doctor Semoff first called upon the board to review the scope of activity and operation of his subcommittee on maternal and child health with a view toward determining exactly what is desired and how this subcommittee might best function. He expressed dissatisfaction with past liaison between this group and the state department of health, especially when functioning as a medical advisory committee, and particularly in matters dealing with maternal and child health through Doctor Easen, maternal and child health director of the health department. Effort expended over the years in realizing successful enactment of a midwifery bill followed by development of details as to examination leading up to licensure and training; review of the deplorable maternal-infant death mortality problem in Arizona; the question of use of silver nitrate or other agent in the eyes of the newborn; these and other problems yet unsolved were discussed in considerable detail. Doctor Salsbury reiterated his continuing desire to extend the full cooperation of his department to this subcommittee, the professional board and the association.

Doctor Farness recommended that there be a closer relationship and co-operation between the maternal and child health subcommittees and the state department of health; that they try to work out to mutual advantage problems that may arise; and that if the health department calls upon the subcommittees and it finds on occasion that a problem is in existence, that an on-the-spot investigation be undertaken jointly between the two groups, the subcommittee to render its report to this board.

It was moved by Doctor Farness, seconded by Doctor Leonard and unanimously carried that no standing advisory committee be made, but that the department of health be requested to forward problems to the group and then an appropriate committee be appointed which will work and report through our board to the state department of health to answer the problem, if it be answerable.

Tuberculosis

Doctor Farness presented for discussion the matter of development of a uniform case finding system for the state through skin testing which the state health department and the Arizona Tuberculosis and Health Association is attempting to work out. He stated that this has always been his recommendation while a member of this board — that we have a statewide skin testing program in preference to mass x-rays — now supported by the public health service which has made this very recommendation that they no longer have mass x-ray surveys because of the cost load and the relative smallness of the reactors. It is recognized that skin testing requires adequate follow-up where indicated and there appears to be good possibility the program will get underway with the opening of the school season approaching. Doctor Salsbury, who was present, was urged to implement the program on a statewide basis with proper follow-up, positive reactors to be x-rayed.

The case of suspect pulmonary tuberculosis and questionable diagnosis reported by the Maricopa County Health Department was reviewed. The matter had been referred to the Maricopa County Medical Society for investigation and report on its findings. A letter dated Aug. 4, 1958, signed by its president, Dr. Paul L. Singer, was presented and read wherein it was concluded that problems of inaccuracy of diagnosis are not properly in the province of its professional committee, such right being reserved to the state board of medical examiners. Another previous case in point involving a northern Arizona physician was again reviewed. Considerable discussion ensued.

It was moved by Doctor Farness, seconded by Doctor Ergenbright and unanimously carried, that this board recommend to council the establishment of a policy, supported by the state association, that in cases of suspected active tuberculosis, the physician in charge of the patient submit to the Arizona state department of health a report on a chest film, certified and signed by a qualified radiologist; that the physician also submit a report on a series of three gastric washings by a certified laboratory, signed by a certified clinical pathologist; and that such procedures be carried out within 30 days of the request.

The American College of Chest Physicians during its 24th annual meeting in San Francisco this past June passed the following resolution:

"In view of the vital interest in improving public health and welfare, and in the eradi-

cation of diseases of the chest in particular, our position regarding the use of BCG (Baccillus Calmette-Guerin) against tuberculosis in the United States should be made known. At the present time, there is insufficient evidence that significant protection is afforded by its use. The council fully endorses the anti-tuberculosis control program of the U.S. Public Health Service, which includes research in BCG, and urges the continued support of their program."

Received and content noted.

Mental Diseases

Doctor Gregory stated that last time we met, we talked about the possibility of recommending the setting up of committees in various hospitals to pass on therapeutic abortions — this because in certain teaching hospitals in the larger cities in the more progressive states, they usually have these as a functioning part of the hospital organization. This was brought up because 42 per cent of the therapeutic abortions done are done for psychiatric reasons. Following investigation of the situation here with the local men and reviewing a few therapeutic abortions in hospitals that do them, Doctor Gregory is of the opinion there is no need therefor for these reasons:

1. The therapeutic abortions that are done in the local hospitals are reviewed by the obstetrical committees. They consist of very fine men who review the record, talk to the attending surgeon and investigate the reasons for a therapeutic abortion.
2. The social problems in terms of setting up a specific committee for this might result in raising the wrath of many outside and unrelated organizations.
3. The majority of psychiatrists here are not in favor of it.

It was moved by Doctor Gregory, seconded by Doctor Farness and unanimously carried, that we recommend that no such committees be set up; that in hospitals where therapeutic abortions are done, they have available a committee to review the indications and pass on them; and that the hospital be an accredited (registered with the American Hospital Association) one.

Doctor Gregory indicated he plans to attend the Fifth Annual Conference of Mental Health Representatives of the State Medical Associations at the Drake Hotel, Chicago, Nov. 21 and 22, 1958. Following action of this board taken April 13, 1958, pertaining to subsidization of attendance at this meeting, council on Apirl 30, 1958, observed that the professional board is granted an annual appropriation to cover its legitimate expenditures as it may deem wise and appropriate; accordingly, this matter has been referred back to the board without comment or direction as to how it shall expend its appropriation.

Attendance was authorized at the expense of this board, Doctor Gregory to report to the board on his return summarizing the proceedings.

In the matter of employment of the state auxiliary for the purpose of mental health education, Doctor Gregory advised that through the mental health hospital organization, certain educational films are available for public showing. Local psychiatrists have agreed to attend such meetings called and offer comments on the films, or otherwise. Doctor Gregory was requested to inform the auxiliary accordingly.

Venereal Diseases

Regarding venereal diseases, Doctor Schwartzmann called attention to a letter recently received from the state department of health referable to the planned seminar on diagnosis of venereal diseases, particularly syphillis, and the changes and progress to date on care associated with the VD program. The state department requests that we consider giving favorable publicity thereto through the state society and help to promote same in the two areas in which they plan to present their clinics.

Doctor Salsbury expressed the view that he feels they will be very helpful. It is planned to have the top men in the public health service on venereal diseases participate as well as outstanding private practitioners in this field who will assist. Two days each in Tucson and Phoenix during October will be arranged, the meetings to be open to all of the physicians in the state.

So far this year there is noticeable quite a definite drop in the number of new cases of syphillis reported, but quite a substantial increase in the number of cases of gonorrhea. Some study is being done regarding the increasing incidence of gonorrhea in teenagers. That is becoming not only a state problem here, but is one being recognized throughout the whole country and it is felt important to do some research and study thereon. Plans are developing to do a num-

ber of case finding programs in high incidence areas, including labor camps where it is known a high incidence in venereal diseases exists.

It was moved by Doctor Wormley, seconded by Doctor Ross and unanimously carried that we pass on favorably this request and urge the state society to aid as much as possible in getting an enthusiastic turnout for the clinics in the two areas.

Geriatrics

With increasing interest and activity in the field of aging, Doctor Schwartzmann appointed a new subcommittee on geriatrics and asked Doctor Wormley to act as its chairman, which he accepted. Attention was directed to the forthcoming "AMA Planning Conference on Medical Society Action in the Field of Aging" at the Drake Hotel, Chicago, Sept. 13 and 14, 1958. Doctor Warmley was asked to attend representing the association, expenses to be borne by AMA, and report to this board on his return summarizing the proceedings.

Seminars

While the activity of the subcommittee on seminars has been temporarily, at least, discontinued, Doctor Schwartzmann asked the members to keep such function in mind.

OTHER BUSINESS

Voluntary Health Organizations

Dealing with problems that have arisen in the raising and distributing of funds since development of the concept of united community effort, the AMA House of Delegates in session in San Francisco in June 1958, adopted the following statement offered in the form of amendments from the floor:

1. *That the house of delegates reiterate its commendation and approval of the principal voluntary health agencies.*
2. *That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund raising in their particular spheres of interest.*
3. *That the house of delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.*
4. *That the board of trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution.*

Hypnosis

Another action of the AMA House of Delegates in June last dealt with the medical aspects of hypnosis. A council on mental health report on medical use of hypnosis was approved by the house which recommended that it be published in the Journal of the AMA with bibliography attached. The report stated that general practitioners, medical specialists and dentists might find hypnosis valuable as a therapeutic adjunct within the specific fields of their professional competence. It is stressed, however, that all those who use hypnosis need be aware of the complex nature of the malady involved. Teaching related to hypnosis should be under responsible medical or dental direction, the report emphasized, and should include the indications and limitations of its use. The report urged physicians and dentists to participate in high level research on hypnosis and it vigorously condemned the use of hypnosis for entertainment purposes.

It was determined further study and report on these subjects appeared indicated, the items to be listed on the agenda of the next meeting.

Consultation with Osteopaths

Doctor Schwartzmann presented and read a letter dated July 9, 1958, addressed to W. R. Manning, M.D., president of the association, by L. L. Tuveson, M.D., chairman of the industrial relations committee acting as a medical advisory board to the industrial commission, calling attention that the problem of consulting with osteopathic physicians and surgeons again has become a problem to solve, since Phoenix has now acquired an osteopathic orthopedic surgeon and an osteopathic neurosurgeon. These two men have requested that back cases should be allowed surgery by them as requested. The osteopathic profession in this town has no member who is specializing in psychiatry and the suggestion was made that the osteopaths themselves organize a board for consulting in such cases as are treated by their profession. The industrial relations committee considered it wise to bring this problem to the professional board of the association in order that some recommendation can be made in the future when questions of

consultations arise.

It was moved by Doctor Ross, seconded by Doctor Gregory and unanimously carried that insofar as the practice of medicine by doctors of medicine in this state can satisfy all of the requirements of the industrial commission for deciding on such treatment for their patients, that we feel that the doctors of medicine themselves are fully covered for their problems; and insofar as we are not privileged to freely consult with the other branches of the healing arts (non-doctors of medicine), that we feel the industrial commission, since they do recognize the other branches, are in a position of having to settle their own problems of consultation and providing such consultation as the other branches need, in their own way; and that we recommend that no attempts be made to try and have the medical profession fill in the deficiencies in the other branches of the healing arts for the industrial commission's convenience; and that we feel that this recommendation is perfectly sound even for the good of the patient, since the industrial commission is privileged at any time to transfer the care of a patient from one branch of the healing arts to another, if his condition demands such transfer.

North Mountain Hospital, Phoenix

Presented for review and recommendation was a copy of report to Clarence G. Salsbury, M.D., commissioner, Arizona State Department of Health, by Clarence R. Horton, assistant director, and Annabel Reid, hospital field representative, relating to a trip to North Mountain Hospital, Phoenix, for a routine hospital licensing inspection.

Following lengthy discussion, it was determined that a letter be directed to Doctor Salsbury advising that after reviewing the report brought to the attention of this board referable to the trip to the North Mountain Hospital by Clarence R. Horton and Annabel Reid, we are unable from the report itself to draw any conclusions to offer a salient comment; that we are willing to offer the services of one or two of the surgeons on our board to re-inspect the hospital and then will make recommendations after we have received a report from competent medical authority.

Transfer Prepaid Medical Services to Blue Shield

Presented and read was an action of the Arizona Society of Pathologists voting to petition the Council of The Arizona Medical Association, Inc., to consider the transfer of all prepaid medical services to Blue Shield. It was pointed out that this will necessitate the definition of pathology, radiology and anesthesiology as the practice of medicine and would remove payment of these services, when rendered by a physician, from Blue Cross coverage and substitute Blue Shield coverage in these instances. Council referred the matter to this board for study and opinion. Lengthy discussion ensued delving into the many ramifications and implications of the problem with an understanding of the objectives, especially of the pathologists and radiologists.

It was concluded that at the next meeting of this board, a representative of the pathology group, as well as a representative of Blue Cross and Blue Shield, be invited to attend, notifying them that each will be given a maximum of 10 minutes to present his problem to the board, following which consideration thereof will be given.

ECFMG — Program

Doctor Schwartzmann reviewed the program of the Educational Council for Foreign Medical Graduates as outlined in pamphlet entitled: "The Present and Future Status of Foreign Medical School Credentials in the United States." This program sponsored by the American Medical Association, the Association of American Medical Colleges, the American Hospital Association and the Federation of State Medical Boards of the United States is already operative and it is voted that on and after Jan. 1, 1960, the American Hospital Association will require of all member hospitals considering appointment of foreign medical graduates, that they accept only such graduates certified by the ECFMG and will take this into consideration when approving hospitals for listing. It was directed that copies of this pamphlet be obtained and distributed to the members of this board for their reading and enlightenment.

LESLIE B. SMITH, M.D.,
Secretary

By:
ROBERT CARPENTER,
Executive Secretary

CIVIL DEFENSE

*BLOOD DISEASES IN HIROSHIMA**

THE detrimental effects of an atom-bomb explosion on the human organism are due chiefly to the gamma rays and the neutrons. Where a person is 1-2 km. from the center of the explosion, death must often be expected to ensue within a very short space of time. If the distance is 2-4 km., the lesions are admittedly less severe, but still very insidious. It is true that in Hiroshima most of the survivors seemed to have recovered their health within two to three years, but they live under the constant threat of a blood disease.

Investigations carried out in Hiroshima 11 years after the dropping of the atom bomb revealed the following picture: There is a chance that people whose hemopoietic functions were damaged by radiation will get better. Where regeneration is not complete, however, the blood-forming organs may show a morbid increase in activity, leading possibly to leukemia. Both leucopenia and leucocytosis are frequently encountered in Hiroshima. Even in individuals whose white blood count appears to be normal, the bone marrow may reveal radiation damage. In addition, there is a high incidence of anemia, for 25 per cent of the men and women examined had less than 4 and 3.5 million erythrocytes respectively. The examinations were performed on 1,783 people who had suffered radiation damage from being within 3 km. of the center of the explosion; persons who settled in Hiroshima after 1946 were used for comparison purposes.

G.F.

*DELAYED EFFECTS OF THE ATOM BOMB***

INVESTIGATIONS carried out in Hiroshima and Nagasaki between 1951 and 1955 show that the delayed effects of the atom-bomb explosions have resulted in damage to various organs of the human body. Comparative statistics, insofar as they are available, reveal that the mortality rate of those exposed to radiation is higher than that of the remaining population. The incidence of malignant tumours and leukemia in particular has increased, as has that of asthma. Leukemia was particularly common in 1951, since when the number of cases has declined again; the disease is encountered about 10 times more often among patients who had been within a radius of 2 km. of the center of the explosion than among those who were further away. Eye lesions have been detected in 84 per cent of the exposed population. Adrenocortical function is frequently impaired, as shown by the Thorn test or by autopsy findings (adrenocortical atrophy). Microcephaly with disturbances of mental development is no rarity; the extent of the defect depends on the amount of radiation absorbed and on the age of the fetus or embryo at the time of the explosion. Autopsies performed on fetuses or newborn infants have revealed malformations in 18.9 per cent of cases, where at least one parent was exposed to the atom bomb.

Damage to tooth enamel tends to occur in children exposed after birth and not in the uterus. Radioactive damage is likewise often found in people who came to Hiroshima within the first five days after the explosion. Phenomena similar to those encountered in Hiroshima and Nagasaki have been observed among fishermen who suffered the radiation effects of an H-bomb at Bikini.

*Kono, Y. (Osp. Civile, Hiroshima, Japan) Effetti tardivi della bomba "A" di Hiroshima: il quadro ematologico nei sopravvissuti a undici anni dall'esplosione. Minerva med. (It.) 49, 707, 1958.

**Kusano, N. (Hiroshima, Japan) Rassegna di dati recenti sugli effetti clinici tardivi della bomba atomica in Hiroshima e Nagasaki. Minerva med. (It.) 49, 711, 1958. (Reproduced from Ciba Literature Review)

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FEDERAL LEGISLATION RELATED TO MEDICINE

HOUSE PASSES RESEARCH FACILITIES EXTENSION

THE house, under suspension of rules, on Aug. 5 passed and sent to the senate HR 12876 which extends for three years the $30 million a year grants act for construction of research facilities in the fields of crippling and killing diseases. The program has been in operation two years and was due to expire next year. The house was informed that all of the $90 million authorized and appropriated under the original act either has been spent or committed. After first formally approving a section of the bill that would authorize grants for facilities intended for both research and teaching, the committee reversed itself and dropped this provision. Representative Mack (D., Ill.) expressed the hope that congress next year would make this one of its first orders of business. The bill is now before the senate labor and public welfare committee.

BUDGET BUREAU SUPPORTS CLARIFICATION OF VETERANS' BENEFITS

A spokesman for the budget bureau informed the house veterans' affairs committee on Aug. 6 that the agency believes there is need for clarifying the responsibility of the government to the veteran who needs medical care. Deputy Director Robert Merriam testified that the law is not clear on how hospital beds should be used and for whom.

Pressed on the bureau's withholding of VA funds for hospital beds, Mr. Merriam said the allocation of funds to various federal agencies was dependent upon the needs and requirements of all government departments and not one specific agency. Allocation of funds, he added, was frequently a matter of timing rather than actual withholding. Mr. Merriam insisted that in no instance was any attempt ever made to circumvent the will of congress by denying necessary funds appropriated by congress.

Fred McNamara, budget bureau expert on all federal hospital matters, was asked by Rep. Edith Rogers (R., Mass.) whether the American Medical Association had met with the bureau to influence allocation of VA appropriations. Mr.





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McNamara replied that the association has met with bureau officials from time to time, but that none of the discussions has influenced "in any way" the attitude of the bureau.

The budget bureau has been a target of the veterans' affairs committee for some time, and only last week the committee reported out a bill that seeks to obviate "administrative decisions" the committee feels has kept some 5,000 beds out of service.

SIX DRUG FIRMS CITED IN PRICE FIXING COMPLAINT ON TETRACYCLINES

The Federal Trade Commission has cited six firms — Charles Pfizer & Co., Inc.; American Cyanamid Co.; Bristol Myers Co. and its subsidiary, Bristol Laboratories Inc.; Olin Mathieson Chemical Corp., and Upjohn Co. — on alleged price fixing of the three tetracycline drugs. The companies promptly denied the charges. The complaint was issued along with a 361-page study entitled, "Economic Report on Antibiotic Manufacture."

The report identifies American Cyanamid as the largest producer in 1956 of antibiotics; Pfizer is second; Mathieson, fourth; Upjohn, sixth, and Bristol-Myers ninth out of 12 companies in the field. Antibiotic sales that year were estimated at $330 million. FTC claims that Pfizer made false, misleading and incorrect statements to the U.S. Patent Office when it obtained a patent on tetracycline; FTC insists there was no real novelty or invention in the patent claims. FTC goes on to charge that Pfizer then issued "invalid licenses" under the patent to Cyanamid in 1955, and Bristol Laboratories, Mathieson and Upjohn in 1956. FTC set a date of Oct. 1 in New York for a hearing to show cause why a cease and desist order should not be issued.

52-32 SENATE VOTE ON TECHNICAL ISSUE SIDETRACKS KEOGH BILL

The senate, in a 52-32 vote on a technical issue, on Aug. 12 sidetracked the Keogh bill to help the self-employed set up retirement plans. Subsequently, it was learned that senate policy committees of both parties decided to oppose the bill at this time because of the loss of tax revenue it would cause.

However, backers of the bill are continuing





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their efforts for favorable senate consideration in view of the overwhelming vote for it in the house. Also, they are encouraged that 32 senators voted for the measure despite the unfavorable legislative situation and the attitude of party leaders. If passage can't be effected in the days remaining before adjournment, many supporters are convinced that the progress made this year will pave the way for enactment in the new congress when it meets in January.

The senate vote developed this way: When a bill for correcting and changing many parts of the tax law came up for debate, Sen. Charles E. Potter (R., Mich.) offered the Keogh bill as an amendment. Sen. Russell Long (D., La.) and several others took the floor against the Potter amendment, complaining of the tax loss involved, of the fact that it was discriminatory, and that the senate finance committee had not studied the legislation.

Sen. Wayne Morse (D., Ore.) then moved the adoption of a substitute for the Keogh bill that would cover all taxpayers, but with a lower set-aside limit ($1,000 annually instead of the Keogh bill's $2,500). The Morse bill would result in a tax loss of as much as $1.9 billion annually, in contrast to the Keogh bill's $365 million (a treasury estimate that Keogh supporters say is too high). Morse argued that the Keogh bill was discriminatory, and that all taxpayers should have the benefit, or none should have it.

At this point, Sen. Robert S. Kerr (D., Okla.) challenged the motions as not germane to the bill actually before the senate. The ruling was that both were germane, whereupon Senator Kerr asked the senate to reverse the chair's ruling. Thus the senators were left with a choice of reasons for their votes. They could vote nay because they were (a) against the Keogh bill, (b) against the Morse bill, or (c) did not believe either bill should be made a part of the legislation under consideration, but should be handled separately and be considered by the finance committee.

BERRY PLAN APPLICATIONS LAG; DRAFT CALLS IN PROSPECT IN '59

Because of a steady decline in applications under the Berry plan, defense department says it





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may have to call up men through the doctor draft next year. The only thing that will avoid the draft calls, which have not been used for some time, will be a marked increase in Berry plan applications before Sept. 15. Under the plan, interns volunteer as reserves, and a mutually agreeable date for their call-up following completion of internship is decided in advance. Because of the drop-off in applications, the defense department has to start plans for use of the draft to meet its requirements as of July 1959.

Here are the statistics: The department requires 1,000 intern volunteers for the Berry plan to assure the physicians it will need next summer. However, of 5,400 interns liable for service, only 250 have applied. In addition, the department needs 800 applicants for residency deferment under the plan, but has received only 300 so far. This means a prospective shortage of 1,250 physicians for active duty.

HOUSE COMMITTEE REPORTS ON SHELTERS AND WEIGHT REDUCERS

Winding up lengthy studies on two subjects, the house government operations committee this week made reports with the following highlights:

Atomic Shelter Programs — Self-help cannot provide nationwide protection against the deadly effects of exploding nuclear bombs any more than self-help can build the bombs. Unless the federal government accepts the major responsibility for planning, financing and building atomic shelters, we will have no effective civil defense program.

Weight Reducing Remedies — The Federal Trade Commission has failed to discharge its statutory responsibilities to protect the public from the evils of false and misleading advertising of alleged weight-reducing preparations. As a result, the American consumer is being bilked out of approximately $100 million annually it spends on these preparations.

EISENHOWER PROPOSES NEAR EAST HEALTH EFFORT

As one of the points in his Near East development program, President Eisenhower is proposing that the U.S. join with other countries and

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the World Health Organization in an all-out attack on preventable diseases in the area. He outlined broad plans to the United Nations general assembly on Aug. 13. Commented the President: "Another great challenge facing the area is disease. Already there is substantial effort among the peoples and governments of the Near East to conquer disease and disability. But much remains to be done." He left for a future date the details of such a program.

SENATE APPROVES $1 MILLION FOR PUBLIC HEALTH SCHOOL GRANTS

Without waiting for a formal request from the administration, the senate appropriations committee tacked on $1 million to a multi-agency supplemental bill for teaching grants to schools of public health. This law was signed by the President July 22. The senate gave tentative approval to committee amendments. If accepted by the house conferees, the program of graduate teaching grants could be launched this year.

FEDERAL AGENCIES MEETING ON PROPOSED AIRMAIL BAN ON VACCINES

Federal agencies, including defense department and public health service, met on a proposal of the post office department to ban the airmail shipment of etiological agents as well as vaccines and serums. Health officials are inclined to view the proposal as seriously hampering medicine because so much of today's materials must be moved swiftly by air.

The proposal dates back to the breakage on a plane several years ago of a vial of poliomyelitis virus. Concerned over passenger safety, some of the airlines through the Air Transport Association asked the post office to take steps. This was followed by a notice in the Federal Register of a proposed ruling. Interested groups were given until Sept. 22 to submit comments to Edwin A. Riley, director of postal services division, Bureau of Operations, P. O. Department, Washington 25, D. C.

PHS in the meantime has been experimenting with new and safer packaging which it feels has the breakage problem licked and, therefore, air mail shipments would be safe with adoption of the new packaging standards.

CONGRESSIONAL ROUND-UP OF HEALTH LEGISLATION IN CLOSING HOURS

Congress in the closing hours voted more health measures, but failed to act on others of interest to the profession. Passed over until the next congress were (1) mortgage loan guarantees for proprietary nursing homes, (2) Keogh legislation for tax deferral of funds paid by the self-employed into retirement plans and (3) spelling out of veterans' entitlement to veterans' administration hospitals. Measures that passed:

Food Additives — The house agreed to senate amendments, sending the bill for pretesting of food additives to the President. The measure was amended in the senate to increase the annual salary of the food and drug commissioner from $17,500 to $20,000 and to allow the National Institutes of Health to hire executive and administrative personnel at salaries ranging between $12,500 and $19,000. The new act would prohibit use in food of additives which have not been adequately tested to establish their safety.

International Health Study — The senate authorized a $30,000 study by the senate government operations committee of all international activities of federal agencies concerned with worldwide health matters, as well as international health research, rehabilitation and assistance programs. The committee would report its findings and recommendations by next Jan. 31. Senator Humphrey (D., Minn.), author of the resolution, said there was need for co-ordination of "mushrooming" U. S. activities in international health.

Mentally Retarded — The senate agreed to a house bill that would encourage expansion of teaching in the education of mentally retarded children through grants to institutions of higher learning and to state educational agencies.

Independent Offices Appropriation — The independent offices appropriations bill which previously had been vetoed, was passed, with over $800 million for running the VA hospitals and other facilities included.

PHS ANNOUNCES COMPLETION OF NEW STUDENT TRAINING PROGRAM

Some 135 students, including medical, dental and nursing pupils, recently completed summer assignments at public health service facilities under a new project called Commissioned Officer Student Training and Extern Program, or COSTEP. The program is a year-'round operation, although the summer months draw the largest number of students.

Selected students are expected to have completed at least the second year of professional training and be willing to apply for a PHS re-

serve commission. They are then put on inaetive duty for a period not to exeeed four months. On graduation, they may obtain medical or dental internships, or go on aetive duty.

PHS said the objeetives are to (1) interest promising students in PHS eareers, (2) help them advanee professionally while employed, (3) provide an opportunity to learn more about PHS and independent agencies, and (4) provide PHS with competent younger staff. Posts are available at the National Institutes of Health, Bethesda, Md.; the Communieable Disease Center, Atlanta, Ga., and PHS hospitals and other faeilities in the U. S. and Alaska. Assignments in Alaska usually are open to students with three years of professional education.

LEGISLATIVE BOXSCORE, 85th CONGRESS SECOND SESSION

The 85th eongress eame to an end in the early morning hours of Aug. 24. It enaeted a large number of health measures, the more important ones being listed in this boxseore. It also failed to aet on some bills in the elosing hours. In all likelihood, they will be introdueed anew in the 86th congress convening Jan. 7. At least five of the bills enaeted still are awaiting the President's signature and assignment of a publie law number.

Subject	*Bill No.*	*House*	*Senate*
Public works loans	S. 3497	Voted down Aug. 1	Passed April 16
Civilian pay (VA doetors)	S. 734	Public Law 85-462, June 20	
Military pay	HR 11470	Publie Law 85-422, May 20	
Publie health school grants	HR 11414	Public Law 85-544, July 22	
HEW appropriations	HR 11645	Public Law 85-580, Aug. 1	
Union health plans	S. 2888	Awaiting presidential signature	
Soeial seeurity	HR 13549	Awaiting presidential signature	
Medical sehool aid	HR 6874	Hearings held	
	S. 1917		In committee
Researeh facilities	HR 12876	Awaiting presidential signature	
Chemical additives	HR 13254	Awaiting presidential signature	
Jenkins-Keogh taxes	HR 10	Passed July 28	
	S. 3194		In committee
Hill-Burton extension	HR 12628	Public Law 85-664, Aug. 14	
Hill-Burton loans	HR 12694	Publie Law 85-589, Aug. 1	
Federal aviation agency	S. 3880	Publie Law 85-726, Aug. 23	
Civil defense aid	HR 7576	Publie Law 85-606, Aug. 8	
Defense reorganization	HR 12541	Publie Law 85-599, Aug. 6	
Medieare appropriations	HR 12738	Publie Law 85-724, Aug. 22	
Nursing home loans	S. 4035	Voted down Aug. 18	Passed July 11
	HR 13776	Pending	
Presumption of service	HR 413	Passed July 7	Postponed
connection	HR 1143	Passed July 21	
VA hospitalization	HR 10028	Reported July 30	
Aging conference	HR 9822	Awaiting presidential signature	

No Action: Medieal eare for aged (Forand's HR 9467); grants and seholarships for nursing (HR 306); national compulsory health insuranee (HR 3764); health insuranee pooling (HR 6506 and HR 6507); Rehabilitation (HR 10608 and S. 3551).

DEFENSE DEPARTMENT RULES IN FAVOR OF VETERINARY SERVICES

Seeretary of Defense Neil MeElroy has ruled that the veterinary serviees in the armed forees will be eontinued. This aetion reverses a deeision of former Defense Seeretary Charles Wilson who had proposed to abolish the serviees and transfer duties to various other agencies, ineluding the agrieulture department, and also to the military medieal serviees. The Ameriean Medieal Assoeiation joined with the Ameriean Veterinary Medical Association in strongly opposing the move.

The feeling in the defense department now is that the aetivities of military veterinarians have been inereasing, partieularly in sueh fields as baeteriologieal and radiologieal medieine and spaee medieine with its use of animals.

As an outgrowth, appointments in the regular army and air force veterinary corps, held in abeyance pending a final determination of their status, are expected to be made soon.

PERSONNEL

Maj. Gen. Harry G. Armstrong, former air force surgeon general and pioneer in space medicine, has retired after nearly 30 years service; he will reside in Washington. He was the first doctor to make a delayed opening parachute jump which led to important medical findings in delayed emergency jumps at high altitudes. General Armstrong also established the Department of Space Medicine while commadant of the Air Force School of Aviation Medicine.

Dr. Horace B. Cupp, who has been area medical director for the veterans' administration, has been named deputy for operations of VA hospitals, outpatient clinics and homes.

Dr. Irvin J. Cohen fills a new post of deputy to the assistant chief medical director for professional services.

John Wendell Gray has been appointed chief of the division of surplus property utilization in the department of HEW; he will administer a program of allocating surplus government property to hospitals, schools and civil defense units.

TEENAGERS SHYING AWAY FROM SOCIALIZED MEDICINE

THE PURDUE Panel of Purdue University surveyed thousands of representatives of high school students in every part of the nation to learn what they really know about sound medical principles for keeping fit. The results of that survey were carried in the press recently, and there was one portion of interest to physicians.

The survey report said that families of 70 per cent of today's teens carry health insurance, and it then pointed out that the tremendous growth of private medical insurance programs is credited with turning teenagers increasingly away from *socialized medicine. In the poll on the subject, 52 per cent of young people thought the government should estabilsh a permanent system of providing medical services for all,* with 22 per cent opposed and 26 per cent undecided.

But the significant point was that these figures represent a change from opinions expressed in 1948, when 80 per cent of teenagers approved of socialized medicine, 11 per cent disapproved and 9 per cent were undecided.

PROGRESS REPORT FROM THE ARIZONA POISONING CONTROL INFORMATION CENTER AT THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY

SALICYLATE POISONING

THE MOST common chemical agents involved in accidental poisonings in Arizona, and perhaps the United States as a whole, are the salicylates, which include aspirin preparations and methyl salicylate. From July 1, 1957 to July 31, 1958, the Arizona Poisoning Control Treatment Centers have reported 607 cases of poisoning to the Arizona Poisoning Control Information Center. Of this total number of poisoning cases, 172 (28 per cent) have been due to salicylates. The widespread use of these substances and the public's unawareness of their potential toxicity are probably the main reasons for this occurrence.

Although methyl salicylate (wintergreen oil) is not involved as frequently as is aspirin, it should be emphasized that it is one of the most toxic of all the salicylate preparations. This fact is not often realized, and as a result as many as 30 deaths occur annually from the ingestion of this substance. Such factors as the pleasant odor and the high concentration of salicylate in this preparation make methyl salicylate an especially hazardous substance to children. A teaspoonful (4 ml.) of wintergreen oil contains about 45 grains of salicylate, an amount which may be fatal in children.

The National Clearinghouse for Poison Control Centers has recently issued the following sound principles concerning salicylate poisoning:

"Prevention is much preferred to treatment, but where ingestion has occurred prompt emptying of the stomach and observation are indicated, as is early institution of therapy in established cases of acute salicylism.* Any ingestion of methyl salicylate should be considered a medical emergency because it is so toxic. Wintergreen oil delays the emptying time of the

*The treatment for acute salicylism as recommended by the Arizona Poisoning Control Information Center's advisory committee can be found in the Poison Control Card File provided for each of the 18 Arizona Poisoning Control Treatment Centers.

stomach; thus gastric lavage may be used effectively up to six hours following ingestion and should be performed. The lack of symptoms following ingestion does not indicate a favorable prognosis. After emptying the stomach, the patient should be closely observed for the next 24 hours."

STATISTICS OF 77 POISONING CASES IN ARIZONA REPORTED SINCE THE JULY 1, 1958, PROGRESS REPORT

AGE:

59.7%	involved under 5 year age group	(46)
13.0%	involved 6 to 15 year age group	(10)
9.1%	involved 16 to 30 year age group	(7)
7.8%	involved 30 to 45 year age group	(6)
10.4%	involved over 45 year age group	(8)

NATURE OF INCIDENT:

89.6%	accidental	(69)
10.4%	intentional	(8)

OUTCOME:

100.0%	recovery	(77)
0.0%	fatal	(0)

TIME OF DAY:

37.7%	occurred between 6 a.m. and noon	(29)
32.5%	occurred between noon and 6 p.m.	(25)
25.9%	occurred between 6 p.m. and midnight	(20)
3.9%	occurred between midnight and 6 a.m.	(3)

CAUSATIVE AGENTS:

16.9%	aspirin preparations	(13)
13.0%	sedatives (barbiturates, paraldehyde, Carbrital)	(10)
16.9%	other medication (Chlortrimeton, Feosol, quinine, thyroid, Probanthine, Percodan, etc.)	(13)
10.4%	solvents (kerosene, gasoline, turpentine, lighter fluid)	(8)
7.8%	insecticides (chlordane, Real Kill, moth proofer, Gator Roach Hive, BHC fly spray)	(6)
2.6%	household bleaches and detergents (Chlorox, trisodium phosphate)	(2)
18.2%	food poisoning	(14)
2.6%	botanicals (oleander, mesquite beans)	(2)
11.6%	miscellaneous (ink, formaldehyde, Kemtone, iodine, etc.)	(9)

THE ROLE OF THE FAMILY PHYSICIAN

GOOD medical care will always depend on how early during illness a physician is consulted and how readily his advice is accepted by those who ask for it. The public has unerringly preserved these basic facts. It is not surprising that 81 per cent of the American people, or about four out of every five, report that they have a family physician to whom they turn regularly when they are sick.

As Dr. Paul Hawley, director of the American College of Surgeons, has said, "Every family needs a medical advisor upon which it can rely, whether or not such a need is recognized. The family physician is the only practitioner of medicine who can fill this role properly. He should be more than an advisor, he should be a medical manager; and, if he has earned the full confidence of the family, he will occupy such a position."

Today the average family doctor is a man in his 40s, a well-established general practitioner in private practice, deriving his income from fees. He treats an average of 26 patients a day, spending eight hours plus on home and office calls, and usually has hospital privileges. By age, usually younger doctors concentrate in smaller communities, while those family doctors over 50 show a higher than usual concentration in large metropolitan areas.

These men classify themselves as general practitioners without certification or special interest in a specialty. About 23 per cent concentrate in a specialty, and about 14 per cent are members of some American specialty board. The majority of them belong to the American Medical Association and the American Academy of General Practice.

A typical family doctor is in solo practice — 70 per cent in strictly individual practice, with 12 per cent sharing facilities with another medical man, and about 16 per cent practice in medical groups. When allowance is made for hospital visits, the estimate median work week for these physicians comes roughly to 60 hours per week. Most of the physicians, four out of five, are generally available at night and Sundays for emergency house calls.

The family physician of today carries on many

of the traditional functions of the general practitioner of former years. He works long hours, carries a heavy patient load, and is generally available for emergency duty. Adapting to the changing demands in modern medical practice, a high proportion of family doctors now have hospital staff affiliations. As far as the general public is concerned, the family physician is still the focal point of medical care and still provides the major image of what a medical practitioner is like.

CANCER GRANT TO UNIVERSITY

A GRANT of $11,178 has been awarded to the University of Arizona to cover the Phase Two of Dr. Mary Caldwell's cancer chemotherapy research project, "The Behavior of Tumors Implanted in the Mouse Treated with Extracts of Higher Plants." This is fundamental research in an extremely important field. To date, the results of Phase One are limited, but present promise.

PRINCIPLES OF INTERNAL MEDICINE

edited by **Tinsley R. Harrison**, M.D. 3rd ed. 1,782 pages plus index. Illustrated. (1958) Blakiston-McGraw. One vol. student ed. $18.50. Two vol. professional ed. $24.

In these 1,782 pages is a vast amount of important, new helpful information for diagnosis, treatment, and reference in daily practice. Part two, cardinal manifestations of disease, has been thoroughly revised. The sections dealing with disorders of circulatory and pulmonary functions have been rewritten in order to bring them into line with the rapid advances in these fields. The section on disorders of nervous function has been expanded and descriptions of the common psychiatric disorders have been added. Psychiatric and neurologic concepts have been integrated where possible. It deals with disease entities in the light of their symptomatology, abnormal physiology, pathology, chemistry, and psychology. The comprehension of the "process of illness" is emphasized more than the mere "name of the disease." This understanding of the mechanism of disease makes diagnosis more accurate and treatment more effective. There are 92 contributors.

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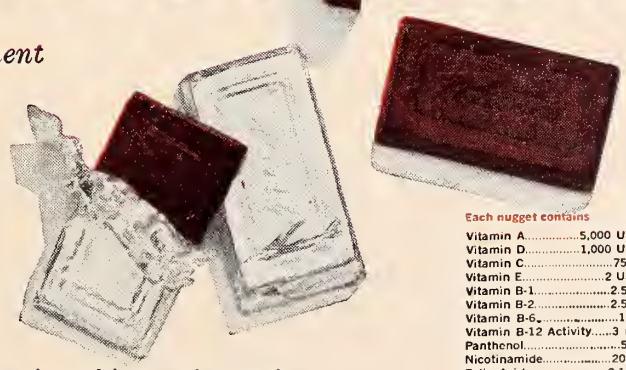


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REHABILITATION MEANS REFERRAL

William A. Bishop Jr., M.D.
Chairman, Medical Advisory Committee, Samuel Gompers Memorial Rehabilitation Center

THE LIBERALIZATION of America's social philosophy during the last 25 years has rekindled a dormant interest in the development of medically-oriented programs for the treatment and training of physically-handicapped persons. That interest, both lay and professional, has sparked a resurgence of a term whose occasional use medical scholars from the ancient Greeks through 19th century horse-and-buggy doctors found accurately descriptive: "rehabilitation" or "rehabilitative therapy," as the moderns are wont to call it.

Given enormous impetus by World War II medicine, the once-simple forms of rehabilitative therapy have emboldened and broadened themselves to the point where they now encompass the specialized services of physical restoration, psychological adjustment, personal counseling, and vocational training and placement. Here and there in the United States there has evolved from a co-ordination and extension of these services the occasional establishment of a medically-oriented facility of broad therapeutic dimensions to which all physicians can send their physically handicapped cases for a program of treatment rarely available to the general public in a single package. Indeed, the availability of so vast an area of treatment for every diagnosable type of crippling disease represents a new era in medicine.

Such a facility is the Samuel Gompers Memorial Rehabilitation Center in Phoenix, regarded by federal government health officials as one of the best-equipped and best-staffed installations of its kind in the nation. Neither hospital nor clinic, Samuel Gompers Memorial is a large, easily expandable therapeutic compass where every type of crippling disease lending itself to sure medical diagnosis can be treated.

Its clientele are out-patients, principally ambulatory. Whatever their ailment, they are not resident. Nor are they independently patients of the center. They are, initially and finally, patients of the physician whose referral gained them admission to the center. While undergoing treatment under the immediate supervision of the center's medical director and his staff of mdical consultants and therapists, the patients continue under the general prescriptive authority of their own physician.

To meet the challenge of a multiplicity of physical handicaps referred to it by Arizona physicians, a rehabilitation center must be variegated in the breadth of the services which it offers. Samuel Gompers Memorial is adequately meeting that challenge with comprehensive, integrated programs for each physical handicap or crippling disease referred to its departments of therapy — *physical, occupational, speech;* its testing laboratories — *psychological, vocational, audiometric;* and its social adjustment services.

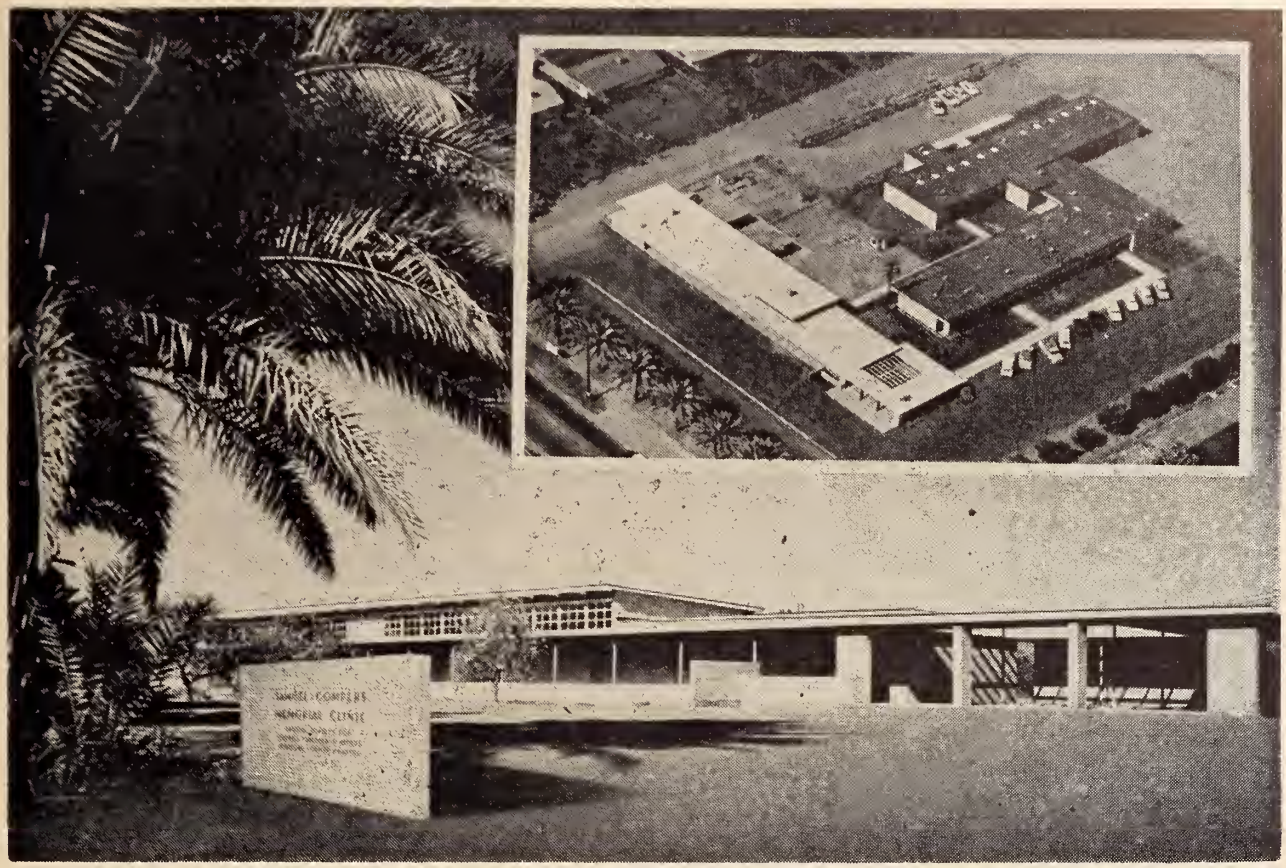
Function of Programs

The programs conceived and developed in *physical therapy* are designed primarily to improve general body function by physical means, heat, massage, and exercise. Given only on the prescription of a licensed physician, many accepted treatments are applied to the various handicaps (e.g., paraffin bath, whirlpool, diathermy, electro-surge, hot packs, infra-red, ultra-violet, massage, electrical stimulations, hydrotherapy, posture and back exercise, gait training, crutch training, muscle-strengthening).

The programs set up and applied in *occupational therapy* are so calculated as to have practical application for the child (e.g., training in activities of daily living, like dressing, feeding, and toilet skills) and for the adults (e.g., retraining in activities of daily living and in specific exercises, like art, crafts, games, all aiming to increase muscle strength, improve range of motion, and develop co-ordination).

The occupational therapy department maintains a large, unusually well-equipped workshop on whose benches, power saws, industrial sewing machines, brush and spray painting equipment, carpentering tools, office machines, looms, and kitchen appliances the handicapped person receives expert guidance in the discovery and development of pre-vocational and avocational counseling.* Here, also specific guidance is given the patient to prepare him for home-bound employment, sheltered workshop activities, and similar productive confinements.

*Called "PVE" (i.e., "pre-vocational evaluation"), the appraisals are team studies and assessments of patient's vocational potential.



The area of corrective treatment and training in *speech therapy* at the center is similarly wide. Its objective of developing acceptable oral communication in a patient necessitates the training of speech muscles and the use of drills and exercises to improve his voice and articulation. The scope of speech re-education embraces the therapy of patients with aphasia, cerebral palsy, cleft palate, stuttering habit, deafness (training in lip-reading,) esophageal speech (e.g., post-laryngectomy), specific voice impairment, and other speech disabilities.

The Gompers *audiological* department provides services in five areas: *diagnostic hearing tests* (i.e., pure-tone air and bone conduction and speech- audiometric testing to measure organic auditory acuity in order to assist referring physician to make appropriate diagnosis; special tests for non-organic hearing loss — e.g., delayed auditory feedback, PGSR, Stenger, Doerfler-Stewart, shifting-voice, Lombard — upon request of referring physician; plan audiometry and psycho-galvanic skin response tests — especially for infants and young children); *pre-* and *post-surgical audiometry* (pure-tone and speech testing to enable mobilization operations and to evaluate results of completed operation); *hearing-aid consultation* (i.e., after appropriate audiometric tests for determination of patient's need for hearing aid, he is advised of benefits and limitations of amplification in particular case and is counseled in reference to his special problems in adjusting to the hearing aid); *rehabilitative services* (i.e., individual or group therapy in auditory and speech training and lip-reading); *parent-and-child pre-school hearing program* (conducted in the accredited Gompers pre-school for deaf and hard-of-hearing children — with parents as teacher-trainees).

The center's *psychological* and *vocational* testing facilities, directed by a staff of psychologists and the pre-vocational evaluator, function for the measurement and counseling of incumbent and applicant patients in the areas of intelligence, work aptitude and tolerance, personality, interest, and kindred factors.

What Is It — What It Does

The roster of crippling diseases for which prescriptive therapy is available at Gompers includes: rheumatoid arthritis, multiple sclerosis, muscular dystrophy, cerebrovascular accidents, caridovascular conditions (occupational therapy only), blindness (occupational therapy only), poliomyelitis (post), cerebral palsy, Guillain-Barre syndrome, primary muscular atrophy (amyotrophic type), peripheral nerve injuries,

spinal cord injuries, neuro-muscular problems following accidental head injury, upper and lower extremity amputees (prothesis training), hemiplegia, muscle weakness and limited-range-of-motion disabilities following multiple fractures, all types of posture defects in children and adults, any type of orthopedic disability (e.g., fractures, amputations, traumatic injuries, repair of joints, muscles, tendons, et al.), Legg-Perthe's disease of children, arthrogryposis, and others.

The non-profit rehabilitation center is owned and operated by the Maricopa County Society of Crippled Children and Adults, Inc.* Its policies are formulated by the society's board of directors and the center's medical advisory committee of 23 physicians. The policies and operations are executed by the executive director, the medical director, the supervisor of social services, and a well-qualified, experienced clinical staff of three physical therapists, two occupational therapists, three speech therapists, one audiologist, one vocational counselor, three psychologists, and four teacher-specialists in training of the deaf and of the orthopedically handicapped. Twice weekly the center conducts a joint admissions and patient-progress appraisal clinic, whose policies, operations, and prescriptions are directed by visiting medical specialist-consultants from the Phoenix area.

While not an eleemosynary institution as such, the Samuel Gompers Memorial patently does not subsist within its annual budget of upwards of $185,000 on the "adjusted" fees which it "token-charges" the greater part of its clients. (Actually, the majority of the out-patients are billed for a most insubstantial fee, in some cases as low as 25 cents per treatment.) Funds for the maintenance of the center accrue largely from the net proceeds of the annual Easter Seal campaign, from fees paid by agencies referring patients to the center, and from donations and grants by foundations, government agencies, groups, clubs, organizations, and individuals.

In no sense is the Samuel Gompers Memorial discriminatory in its admissions policy. There are no restrictions whatever concerning color, race, creed, or ability to pay.

A patient is admitted to the center only on the basis of a valid medical referral either from his physician or from a health, vocational, or educational agency (accompanied by medical history) (e.g., National Foundation for Infantile Paralysis, State Division of Vocational Rehabilitation, State Industrial Accident Commission).

Admission procedure to the center is uncomplicated once the applicant has presented a referral in writing from his physician, or, if a case from an approved agency, a medically-oriented referral from the agency.

That referral initiates the procedure.

Next, the center's supervisors of social services appraises the medical history and interviews the applicant patient (or person responsible for him). She ascertains the financial ability, or inability, of the patient.* Then, the patient is scheduled for an appearance before the center's admissions board (whose composition is the Gompers executive director, its medical director, the visiting medical consultant (who volunteers his services), the supervisors of the therapy departments, the supervisor of social services, a center psychologist, and the vocational counselor). The board convenes twice weekly, on Tuesday and Thursday afternoons at 2 o'clock.**

At the meeting, the center's medical director and the visiting medical consultant examine the patient and his medical history. The consultant then directs the commencement of the course of treatment which has been prescribed by the referring physician or, in the absence of such prescription, himself determines the nature of the treatment and outlines for the staff his instructions for its accomplishment.

The referring physician is then informed by letter of the action taken by the admissions board. Subsequent appearances of each patient before the clinical board will be scheduled as the treatments progress. After each apeparance before the board, its conclusions and recommendations are immediately forwarded to the patient's physician or, as the case may be, to the agency which has referred the patient.

Recognized Need

The availability of increased rehabilitative services for those in the general public crippled by congenital trauma, by the presence of after-

*However, the center functions as a state-wide facility, with its complete program open to any physically handicapped Arizonan equipped with a valid medical referral.

*If the patient can afford to pay the standard fee for the prescribed series of treatments, tests, tuition, etc., he is so charged. If, however, the patient's current financial status does not permit full payment, the fee is adjusted downward to a point where it matches the ability to pay. More often than not, the latter is the case, with only a modicum or token charge being made for services rendered.

**The board recognizes the right of the referring physician to be present at any conference at which his patient is being examined and, accordingly, welcomes him.

math of debilitating disease, or by plain accidental injury is everywhere recognized by the medical profession as a prime national health need. In its comprehensive report, the President's Commission on the Health Needs of the Nation has underscored these factors as major influences in making such services available: (1) a recognition by the physician of the importance of total rehabilitation from, or as close to, the moment of birth or injury or the onset of serious illness; (2) an acceptance by the physician of the importance of early referral to a medically-oriented rehabilitative agency; (3) research directed toward the disability and chronic disease; (4) education and training of many more technical personnel for service in existing and future rehabilitation facilities; (5) education of industrial and business firms, organized labor, voluntary and welfare community groups in the practical needs, particularly the vocational needs, of the handicapped.

In Arizona, as in few other areas in the United States, there does exist a highly developed rehabilitation facility where the thousands of still-untouched handicapped can get as "total" (I am speaking in comparative terms) a rehabilitation program for any type of diagnosable crippling disease as might be obtainable anywhere in the nation. In fact, it is questionable that any other center can match the Samuel Gompers Memorial in its comprehensiveness of therapeutic programming.

At this writing, Gompers has just added the latest of its rehabilitative services to the Arizona community: an integrated program of travel training, personal adjustment, and pre-vocational evaluation for the blind. The new program, fully approved by the state service for the blind and the state division of voeational rehabilitation, is the most comprehensive offered anywhere in the Southwest. With all of the center's rehabilitation services combined in a "team approach" to test, train, treat, and evaluate the blind, the program promises to orient these handicapped to personal, home, and community responsibility. The "team approach" will also utilize the center's psychological and social evaluation services and its vocational and personal counseling facilities. But in Arizona, as elsewhere, rehabilitation means referral, for the rehabilitation of thousands of physically handicapped cannot take form until doctors have been informed of the multiple expert and medically-oriented rehabilitation services offered by the Samuel Gompers Memorial Rehabilitation Center and has recognized its vital curative importance to the patient, the doctor, labor, commerce, and industry, and to the community in general.

In the final analysis, then, there has been established a facility patterned after the most successful rehabilitation centers across the nation. It is a facility dedicated to the use of the physician in private practice in Arizona, designed to complete the treatment of a disabling condition in a manner not elsewhere duplicable in Arizona. It is a facility whose realizable objective is a rehabilitation as total as the disabling condition and modern therapy permit. Its measure of victory is the return of the handicapped to the privilege of community responsibility. Its measure of success depends upon patient referral by the treating physician.

VETERANS' ADMINISTRATION CENTER

Whipple, Ariz.

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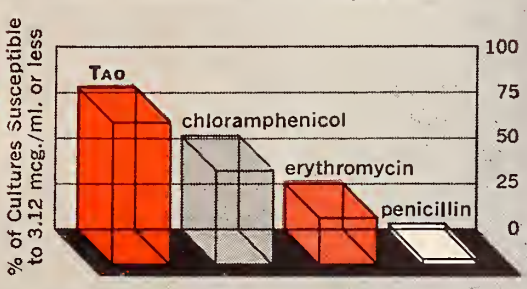
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
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Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. TAO has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

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well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
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STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2



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Public Schools and the Mentally Retarded. Journal of Elementary Education, April, 1957.

Speech Problems and the Teacher. Arizona Education Association Bulletin, May, 1957.

The Relation Between Certain Physical Characteristics and Personality. The Journal of Personality, Spring Issue, 1958.

The Relation Between Ratio Indices of Physique and Selected Scales of the Minnesota Multiphasic Personality Inventory. The Journal of Psychology, 1957, 43:325.

The Relation Between Ratio Indices of Physique and Selected Scales of the MMPI. Doctoral Dissertation, Indiana University, 1955.

The Teacher's Responsibility for Speech Difficulties. Education, December, 1957.

Value Systems and the Therapeutic Interview. Child Development, publication date to be announced.

Vocational Planning for the Mentally Retarded. Occupations, April, 1958.

SMITH, Howard V., M.S., Professor of Agricultural Chemistry and Soils. A Practical Method of Removing Fluorine from Water. Proceedings of the Sixth Pacific Science Congress, 1939, 6:185.

The Chemistry of Fluorine as Related to Fluorosis. American Association for the Advancement of Science, 1942, publication 19, p. 12.

HEART DISEASE IN INFANCY AND CHILDHOOD
by **John D. Keith, M.D., Richard D. Rowe, FRCP, and Peter Vlad, M.D.** 877 pages. Illustrated. (1958) Macmillan. $22.50.

Weighed scientific discussions on all phases of heart diseases of infancy and childhood are included in this comprehensive classic. Research, clinical studies, and the studies of many internationally known investigators are put together in a top authoritative achievement. Cardiologists, researchers, and general practitioners will find this profusely illustrated treatise excellent both in background and in practice.

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MEDICAL DIRECTOR
DUKE R. GASKINS, M. D.

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Very truly yours,

HOSPITAL BENEFIT ASSURANCE

Duke R. Gaskins, M.D.

Medical Director

DRG:jj

BOARD OF MEDICAL EXAMINERS

STATE OF ARIZONA
826 Security Building
Phoenix, Ariz.

The Board of Medical Examiners of the State of Arizona at a regular meeting held Saturday, July 19, 1958, issued certificates to practice medicine and surgery in this state to the following doctors of medicine:

Andrews, Robert O. (GP), 601 Fifth Ave., Yuma, Ariz.

Austin, James Albert (ObG), 2302 E. Colter St., Phoenix, Ariz.

Barger, Hazel L. (ObG), 4875 E. Calle del Medio, Phoenix, Ariz.

Brown, Richard (Pd), 116 No. Tucson Blvd., Tucson, Ariz.

Burch, James N. (GP-S), 4109 N. 51st Ave., Glendale, Ariz.

Clawson, Joseph P. (S), 3825 W. Moreland, Phoenix, Ariz.

Daniels, Albert O. (Path), VA Center, Whipple, Ariz.

deLuise, Rudolph L. (GP), 7040 No. 7th St., Phoenix, Ariz.

Dozer, William E. (I), 1141 E. Glendale Ave., Phoenix, Ariz.

Folberg, Irving I. (GP), Tombstone, Ariz.

Fuglestad, Edson V. (GP), 3417 No. 28th St., Phoenix, Ariz.

Haggar, David K. (GP), Hawarden, Iowa.

Hamblin, Eldon B. (GP), 1626 No. Central Ave., Phoenix, Ariz.

Hamblin, Wayne S. (GP), 1625 E. Camelback Rd., Phoenix, Ariz.

Hershey, Gordon J. C. (GP), 4308 No. 55th Ave., Glendale, Ariz.

Hill, John F. (GP), 102 Cedar, Yankton, S. D.

Hoenecke, Heinz R. (Path), St. Joseph's Hospital, Phoenix, Ariz.

Hoffman, George L. (S), 24 North Hibbert St., Mesa, Ariz.

Hoffman, George T. (NS), 2021 No. Central Ave., Phoenix, Ariz.

Huber, K. Herbert (GP), Maricopa County Gen. Hosp., Phoenix, Ariz.

Jones, Thomas J. (D), 515 W. Hubbell St., Scottsdale, Ariz.

Kurtz, Clyde W. (U), 550 W. Thomas Rd., Phoenix, Ariz.

Lenzmeier, Albert J. (GP-S), 2202 Rockingham Rd., Davenport, Iowa.

Mason, Robert P. (R), 5818 Chamberlain Dr., Des Moines, Iowa.

Matheson, James R. (R), 2021 No. Central Ave., Phoenix, Ariz.

Monroe, Paul B. (GP), 4401 No. 39th St., Phoenix, Ariz.

Moorehead, Matthew T. (R), 808 Park Ave., Norton, Va.

Ramseyer, Jr., Harry W. (GP), 5630 No. 27th Ave., Phoenix, Ariz.

Seagraves, Gerald C. (GP), 412 W. Roosevelt St., Phoenix, Ariz.

Staman, Harry H. (OALR), 49 W. Church St., Uniontown, Pa.

Stillwell, Walter C. (GS), Mankato Clinic, Mankato, Minn.

Thorpe, Sherman W. (S), 1150 N. Country Club Dr., Mesa, Ariz.

Wanstrom, Ruth C. (Path), 1056 Newport Rd., Ann Arbor, Mich.

Weingarten, Jerome S. (ObG), 19346 Ohio, Detroit 21, Mich.

1957-1958 YEAR BOOK OF EAR, NOSE, AND THROAT AND MAXILLOFACIAL SURGERY
edited by John R. Lindsay, M.D., Dean M. Lierle, M.D., and William C. Huffman, M.D. 383 pages. (1958) Year Book. $7.50. Stacey's Medical Books, San Francisco, Calif.

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LOCATION INQUIRIES

BROWN, RICHARD EARL, M.D., 2719 E. 36th Ave., Denver, Colo.; *Pd;* 1954 graduate of Univ. of Cincinnati; interned at Denver General and St. Luke's Hospitals in Denver; serving residency at Children's Hosp., Denver; has fulfilled military obligations; interested in group or associate practice. Age 30; available August 1959.

CARABASI, ROBERT J., M.D., Veterans' Hosp., McKinney, Texas; *Pul and I;* 1948 graduate of Jefferson Medical College; interned at Fitzgerald-Mercy, Darby, Pa.; also served residency there and at Scott & White Clinic, Temple, Texas; age 33 and has Pennsylvania and Texas licenses; prefers group practice and will be available Sept. 1, 1958.

DOUGLAS, HERBERT JOHN, M.D., 741 East Main St., Meridan, Conn.; *GP;* 1957 graduate of State Univ. of Iowa; interned at St. Luke's Methodist Hosp., Cedar Rapids, Ia.; 27 years of age and classified 4F; interested in group or solo practice; available now.

HAFT, HAROLD, M.D., 417 W. 118 St., New York 27, N. Y.; *NS;* 1954 gradduate of State U. of New York and interned at Presbyterian Hosp., N. Y.; serving residency at Bronx VAH & Neurological Institute, N. Y.; served in U. S. Naval Reserve for 20 months; available July 1, 1959.

HILLMAN, FREDERICK J., 428 Medical & Dental Bldg., Everett, Wash.; *GS;* 1950 graduate of Washington Univ. School of Med., St. Louis, Mo.; interned at Madigan Army Hospital, Tacoma, Wash. and served residency at VA Hosp., Seattle. Has licenses in Missouri and Washington and is certified by American Board of Surgery; age 35. Interested in associate practice now.

KASE, WERNER E., M.D., 3140 N. 16th St., Philadelphia 32, Pa.; *ObG;* 1953 graduate of U. of Maryland School of Medicine and interned at Lancaster Gen. Hosp., Lancaster, Pa.; age 30. Served three-year residency at Temple U. Hosp., Philadelphia; has served military obligations; will be available Sept. 17, 1959 for associate or group type practice.

MOOREHEAD, MATTHEW T., M.D., 808 Park Ave., Norton, Va.; *R; S; Path;* 1923 graduate of Western Reserve Univ. and interned at So. Pacific Gen. Hosp., San Francisco. Licensed in 11 states and certified by the American Boards of Radiology, Surgery and Pathology. Age 60; interested in group or associate practice; possibly institutional. Available now.

POPE, JR., CHARLES H., M.D., 7615 MacKenzie Rd., St. Louis 23, Mo.; *Path;* 1954 graduate of Washington Univ., St. Louis; interned at Barnes Hosp. in St. Louis and now serving residency at Barnes and Jewish Hosp. there. Has served two-year military obligation; age 27; available July 1, 1959.

RIDGWAY, DON NEAL, M.D., 713 Emerson Street, Saginaw, Mich.; *GP;* 1954 graduate of Ohio State Univ. College of Med. and interned at Butterworth Hospital, Grand Rapids, Mich. Currently in second year of residency at St. Mary's Hosp., Saginaw, Mich. Served two years as medical officer with USPHS in Indian Health Div., Winslow, Ariz. Available in August 1959.

STONE, WAYNE B., M.D., 1822 So. Fillmore, Little Rock, Ark.;*GP* and *P;* 1932 graduate of U. of Arkansas School of Med.; externship at MO PAC Hosp., Little Rock; residency at Schumpert San., Shreveport, La. Has licenses in Ark., La., Tenn., Ky. and Ind.; has served military obligations; available in November.

LOCATION OPPORTUNITIES

ASHFORK — Pop. 700 — North centrally located — Railroad center — Contact the Women's Club, Ashfork, Ariz.

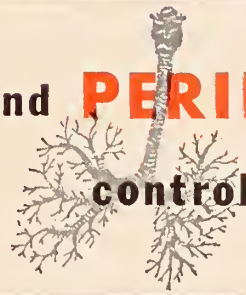
BENSON — Excellent opportunity for GP — This St. David-Benson trade area has about 5,000 population with only one doctor available. A smaller sleep-in hospital can be set up very easily. Hospital 25 miles away. Chamber of commerce will furnish telephone answering service, nine to five. Contact Bernard Fisher, D.D.S., medical committee of the chamber of commerce, Benson, Ariz., or James M. Hesser, M.D., Sixth and Huachuca streets, Benson, Ariz.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R.N., Camp Verde, Ariz.

FLAGSTAFF — Pop. 17,500 — Largest city in the north central Arizona trading area. Excellent opportunity for an EENT doctor. Contact K. O. Hanson, M.D., secretary, Coconino County Medical Society, Five N. Leroux, Flagstaff, Ariz.

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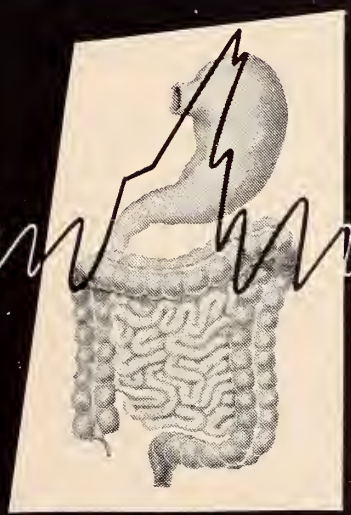
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Ammonium chloride	70.0 mg.
Menthol	1.0 mg.
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SEARLE

GILA BEND — Pop. 2,500 — 80 miles west of Phoenix — Nearest town to the Painted Rock Dam Project — Good opportunity for general practitioner. Cattle, cotton, and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HAYDEN — Pop. 3,000/4,000. Industrial practice — approximately 200 employes and dependents. Only part-time required. Coverage: Metropolitan Surgical Plan. Physician may engage in private practice also. Small company-owned clinical building (new) available for use, with X-ray equipment, diathermy equipment, etc. Fulltime nurse available to assist; clerical work to be handled by company. Company housing facilities available for physician — small rental. Beginning Sept. 1, 1958. Contact: American Smelting & Refining Company, Mr. Ben Roberts, Dept. Mgr., P. O. Box 1111, El Paso, Texas.

HOLBROOK — Population above 7,000. Located in the heart of the northeastern pine country of Arizona on U. S. Rt. 66. Need services of GP. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

MIAMI — Opportunity for GP — Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community near New Mexico-Arizona border. Pop. 10,000. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

ST. JOHNS — Seriously need a doctor of medicine, preferably a general practitioner, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. Peter Falbo, president, chamber of commerce, 9112 West Van Buren St., Tolleson, Ariz.

TUCSON — VA Hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., director, professional service, VA Hospital, Tucson, Ariz.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Ariz.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Finlay, M.D., San Manuel Hospital, San Manuel, Ariz.

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GLAUCOMA
edited by **Frank W. Newell**, M.D. 245 pages. Illustrated. (1957) Josiah Macy Jr. Foundation. $4.95.

Transactions of the second conference, 1956. Four new names among the participants and four distinguished guests make a total of 23 who participated in the conference. Subjects discussed were: Mechanism concerned with aqueous formation, mathematical formulation of aqueous dynamics, mechanisms of transport by membranes, and the glaucoma problem and applanation tonometry. The volume is certain to interest advanced students of glaucoma.

Stacey's Medical Books, San Francisco, Calif.

Future Meetings

AMERICAN CANCER SOCIETY ARIZONA DIVISION

A TENTATIVE PROGRAM
FOR
THE 7TH ANNUAL CANCER SEMINAR
January 22, 23 and 24, 1959
Paradise Inn, Scottsdale, Arizona
SEMINAR COMMITTEE:
Edward H. Bregman, M.D., Chairman, Phoenix
James D. Barger, M.D., Phoenix
Robert B. Leonard, M.D., Phoenix*

Thursday

9:00 — Opening.

9:15 — Anemia of Malignant Disease — Dr. Alfred Gellhorn, New York.

11:15 — Recent Advances in Diagnosis and Treatment of Carcinoma of the Cervix — Dr. Howard Hunt, Omaha, Neb., and Dr. Alexander Brunschwig, New York.

12:30 — Lunch.

2:30-4:30 — Tumors of Central Nervous System — Dr. James W. Kernohan, Rochester, Minn.; Dr. Phillip Hodes, Philadelphia, Pa., and Dr. Edwin B. Boldrey, San Francisco, Calif.

Friday

9:00 — Rol Laughner Memorial Lecture — Treatment of Malignant Disease in the U.S.S.R. — Dr. Alexander Brunschwig, New York.

10:00 — A New Method for Diagnosis of Solitary Lesions of the Lung — Dr. L. H. Garland, San Francisco, Calif.

10:30 — Carcinoma of the Lung — Dr. Richard Overholt, Boston, Mass., and Dr. W. A. D. Anderson, Miami, Fla.

12:00 — Annual Report — American Cancer Society — Kenneth Clark, Vice President for Medical Affairs.

2:00-4:30 — Clinical and Pathological Diagnostic Problems — All participants.

Saturday

9:00 — Review of Chemotherapeutic Agents — Dr. Alfred Gellhorn, New York.

10:00 — Tumors of the Stomach — Dr. L. H. Garland, San Francisco, Calif.; Dr. Alexander Brunschwig, New York, and Dr. W. A. D. Anderson, Miami, Fla.

Saturday Afternoon

Nurses' Seminar.

For further information or reservations contact: American Cancer Society, Arizona Division — 543 E. McDowell Rd., Phoenix, Arizona, ALpine 4-7191.

**Dr. Robert B. Leonard was recently appointed by Dr. Edward H. Bregman to coordinate the activities of the First Annual Nurses' Seminar.*

2ND ANNUAL MEETING MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

YOU ARE cordially invited to attend the Second Annual Meeting of the Medical Society of the United States and Mexico, which will be held in Guadalajara November 5-8 of this year. Before that time you will receive the complete program; an outline follows:

Nov. 5th — Evening — Romper el Hielo or "Break the Ice Party."

Nov. 7th — Morning — Official inauguration by Governor Augustín Yañez, of the State of Jalisco; presentation of scientific papers.

Evening — Mexican party Circulo Frances, with Mexican food, cock fights, and mariachi music and fireworks.

Nov. 7th — Morning — Presentation of scientific papers.

Evening — Official reception at the Governor's Palace, with folk dancing.

Nov. 8th — Morning — Committee meetings.

Evening — Formal dinner dance.

In addition there will be luncheons and visits to places of interest for the ladies, a reception for all members by — the Mayor of Guadalajara, and other entertainment.

You can come here by automobile, by air, or by the special train from Nogales, we understand that you have recently had — an inquiry from our Secretary as to your plans. If you have not already done so we suggest that you reply to Dr. Juan E. Fonseca, 2409 Adams St., Tucson, Arizona, now, especially if you wish to come by train.

You will find the weather in Guadalajara cool but not cold, very similar to that of Southern Arizona. A committee here will handle your hotel reservations, which should be requested by — writing to:

Committee for Reservations, Associacion Medica.
—Gonzáles Ortega No. 23—
Guadalajara, Jal., Mexico

FUTURE MEETINGS

AMERICAN CANCER SOCIETY, INC.

1958 Scientific Session Program
Biltmore Hotel, New York, N. Y.
Oct. 20-21, 1958
SYMPOSIUM ON CANCER
OF THE COLON AND RECTUM

In addition to the presentation of papers, the speakers will participate in a panel discussion as a part of each session.

Monday, Oct. 20, 1958

Morning Session — 9 a.m. — Pathogenesis and Etiology of Cancer of the Colon and Rectum

Dr. Gilbert J. Dalldorf, The National Foundation, New York, N. Y.

Dr. Cuthbert E. Dukes, St. Mark's Hospital, London, England.

Dr. Elson B. Helwig, Armed Forces Institute of Pathology, Washington, D. C.

Dr. Ferdinand C. Helwig, St. Luke's Hospital, Kansas City, Mo.

Dr. David A. Wood, University of California School of Medicine, San Francisco, Calif.

Afternoon Session — 2 p.m. — Diagnosis of Cancer of the Colon and Rectum

Dr. Henry L. Bockus, University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa.

Dr. Fred J. Hodges, University of Michigan Medical School, Ann Arbor, Mich.

Dr. Raymond J. Jackman, Mayo Clinic, Rochester, Minn.

Dr. Eugene P. Pendergrass, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Dr. Howard F. Raskin, University of Chicago Clinics, Chicago, Ill.

Dr. Rupert B. Turnbull, Cleveland Clinic, Cleveland, Ohio.

Tuesday, Oct. 21, 1958

Morning Session — 9 a.m. — Meeting the Problem of Spread of Cancer of the Colon and Rectum

Dr. Warren H. Cole, University of Illinois College of Medicine, Chicago, Ill.

Dr. J. Englebert Dunphy, Harvard Medical School, Boston, Mass.

Dr. Warfield M. Firor, Johns Hopkins Hospital, Baltimore, Md.

Dr. Richard K. Gilchrist, University of Illinois College of Medicine, Chicago, Ill.

Dr. Ulrich K. Henschke, Memorial Center for Cancer and Allied Diseases, New York, N. Y.

Dr. George E. Moore, Roswell Park Memorial Institute, Buffalo, N. Y.

Dr. I. S. Ravdin, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Afternoon Session — 2 p.m. — Treatment of Cancer of the Colon and Rectum

Dr. Frederick A. Coller, University of Michigan Medical School, Ann Arbor, Mich.

Dr. Michael R. Deddish, Memorial Center for Cancer and Allied Diseases, New York, N. Y.

Dr. Cuthbert E. Dukes, St. Mark's Hospital, London, England.

Dr. George A. Hallenbeck, Mayo Clinic, Rochester, Minn.

Mr. H. E. Lockhart-Mummery, St. Mark's Hospital, London, England.

Dr. Leland S. McKittrick, Harvard Medical School, Boston, Mass.

Dr. Howard A. Patterson, Columbia University College of Physicians & Surgeons, New York, N. Y.

Dr. Calvin M. Smyth, Abington Hospital, Abington, Pa.

Dr. Claude E. Welch, Massachusetts General Hospital, Boston, Mass.

ALL SESSIONS ARE OPEN TO ALL MEMBERS OF THE MEDICAL PROFESSION AND STUDENTS

Inquiries concerning this program should be addressed to:

Director, Professional Education
American Cancer Society, Inc.
521 West 57th St., New York 19, N. Y.

— o —

National Defense Resources Conference
of the
Industrial College of the Armed Forces
Phoenix, Ariz., Oct. 27-Nov. 7, 1958

— o —

Postgraduate courses arranged by the American College of Physicians.

Selected subjects in internal medicine:
(Nov. 3-7, 1958)
The Mayo Clinic and Mayo Foundation
Rochester, Minn.

Gastro-Enterology
(Nov. 10-14, 1958)
University of Michigan Medical School
Ann Arbor, Mich.

Congenital Heart Disease

(Nov. 17-22, 1958)
The Johns Hopkins University
School of Medicine, and
The Johns Hopkins Hospital
Baltimore, Md.

Current Research in Endocrinology
(Feb. 2, 3 and 3, 1959)
National Institutes of Health
Baltimore, Md.

Internal Medicine, Especially Therapeutics
(Jan. 12-16, 1959)
University of Illinois College of Medicine
Chicago, Ill.

Recent Advances in Cardiovascular Diseases
(Feb. 9-13, 1959)
The Mount Sinai Hospital
New York, N. Y.

Recent Advances in Internal Medicine
(Feb. 23-27, 1959)
Pennsylvania Hospital
Philadelphia, Pa.

— o —

Interstate 43rd International Medical Assembly,
Postgraduate Medical Association
of North America
Auditorium and Statler-Hilton Hotel
Cleveland
Nov. 10-13, 1958

— o —

National

International College of Surgeons, Mid-Atlantic regional meeting, The Homestead, Hot Springs, Va., Nov. 16-18. Write Dr. Elbyrne G. Gill, 711 Jefferson Street South, Roanoke 13, Va.

International

International College of Surgeons, 24th annual Congress of North American Federation (United States, Canadian and Mexican sections), Palmer House, Chicago, Sept. 13-17, 1959.

Write Dr. Ross T. McIntire, executive secretary, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Ill.

— o —

TWO LOS ANGELES UNIVERSITIES TO PRESENT COURSE IN RECONSTRUCTIVE NASAL SURGERY

The department of otolaryngology of the College of Medical Evangelists and the department of otolaryngology of the University of Southern California School of Medicine, Los Angeles, jointly will present an intensive postgraduate course in "Reconstructive Surgery of the Nasal Septum and External Nasal Pyramid" at White Memorial Hospital, Los Angeles, in January 1959.

The course will be under the guest direction of Dr. Maurice H. Cottle, professor of the department of otolaryngology, Chicago Medical School, and with the co-operation of the American Rhinologic Society. Sessions will start Tuesday evening, Jan. 6, and continue through Friday afternoon, Jan. 9. They will be resumed Monday, Jan. 12, and end at noon on Friday, Jan. 16.

There will be lectures, surgical demonstrations, anatomical exercises, seminars, and case presentations. Special emphasis will be placed on the newer concepts of nasal anatomy, embryology, and physiology.

For further information, write Dr. Leland House, 435 South Soto St., Los Angeles 53, Calif.

— o —

POSTGRADUATE COURSE IN DISEASES OF THE CHEST

The Council on Postgraduate Medical Education of the American College of Chest Physicians will present the following postgraduate courses this fall: Clinical Cardiopulmonary Physiology, Edgewater Beach Hotel, Chicago, Ill., Oct. 13-17, 1958, and Diseases of the Chest, Park Sheraton Hotel, New York City, Nov. 10-14, 1958.

The course on clinical cardiopulmonary physiology in Chicago is the first course on this timely subject ever presented by the American College of Chest Physicians. It is the 13th annual postgraduate course sponsored by the college in Chicago. The course in New York City will offer the most recent advances in the diagnosis and treatment of chest diseases — medical and surgical — and will be the 11th annual postgraduate course sponsored by the college in New York City.

Tuition for each course is $100.

Further information may be obtained by writing to the executive director, American College of Chest Physicians, 112 East Chestnut St., Chicago 11, Ill.

AMERICAN COLLEGE OF SURGEONS

OUTLINE OF SECTIONAL MEETINGS DURING 1959: All members of the medical profession are invited to attend any of the 1959 sectional meetings of the American College of Surgeons. Cities and dates are: Charleston, S. C., Jan. 19, 20, 21; Houston, Tex., Feb. 2, 3, 4; Vancouver, B. C., Feb. 26, 27, 28; St. Louis, Mo., March 9 through 12 (Four-day meeting; joint nurses' sessions); Montereal, Quebec, April 6 through 9 (Four-day meeting: joint nurses' sessions).

CALENDAR OF MEETINGS

DATE	MEETINGS	PLACE
Oct.		
5-10	American College of Surgeons	Chicago, Ill.
9-10	Big 12 Cities Meeting	Biltmore Hotel, N.Y.C.
10 - Oec. 3	International Coll. of Surgs. 3rd Around the World post graduate clinic tour	
13-15	Natl. Rehabilitation Ass'n. Annual Meeting	Ashville, N. C.
20-24	Annual Meeting Amer. Cancer Soc. (Sci. Sess.)	Biltmore Hotel, N.Y.C.
23-25	Southwestern Medical Association	Tucson, Ariz.
23-25	Course in PG Gastroenterology — Amer. Coll. Gastroenterology	Jung Hotel, New Orleans, La.
27-31	American Public Health Association	St. Louis, Mo.
Nov.		
2-8	American Society Clinical Pathologists	Chicago, Ill.
2-8	6th International American Congress Radiology	Lima, Peru
3-8	College American Pathologists	Chicago, Ill.
5-8	Med. Soc. of the U. S. and Mexico	Guadalajara, Mexico
10-13	American Dental Association	Dallas, Texas
17-22	Radiological Society of North America	Chicago, Ill.
18-22	Pan American Dental Congress	Mexico City, Mexico
Dec.		
2-5	American Med. Ass'n. Clinical Meetings	Minneapolis, Minn.
Jan. 1959		
4-7	Southeastern Region Meeting International Coll. of Surgeons	Miami, Fla.
Feb.		
5-8	American Coll. of Radiology, Annual Meeting	Chicago, Ill.
March		
9-12	AMA 4-day Sectional Meeting	St. Louis, Mo.
16-20	National Health Council Annual Meeting	Chicago, Ill.
30 - Apr. 2	Southwestern Surg. Congress	Denver, Colo.
April		
6-8	American Radium Society	Homestead Hotel, Hot Springs, Va.
6-9	American Academy of General Practice	San Francisco, Calif.
9-12	American Ass'n. for Cancer Research Inc.	Haddon Hall, Atlantic City, N. J.
20-23	American Ass'n. Pathologists & Bacteriologists	Boston, Mass.
20-24	American College of Physicians	Conrad Hilton Hotel, Chicago, Ill.
28 - May 2	Arizona Medical Association	Chandler, Ariz.

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references:
1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

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Woman's Auxiliary

SAFEGUARD TODAY'S HEALTH FOR TOMORROW

WE are at the beginning of a new auxiliary year with new personnel to direct us. New personalities will introduce new ideas, and place different interpretations on the traditional; however, our basic objectives remain the same. Mrs. Arthur Underwood, president-elect of the American Medical Auxiliary, stated in the bulletin, "Our goal remains the same. There is continuity in program, and no change in purpose."

Our objective for this year is: "Safeguard Today's Health for Tomorrow." Emphasis should be placed on the importance of the individual, for by sustaining physical and mental well-being in the individual, the health of the community is practically assured. Through co-operation with our husbands to provide and maintain the highest possible health standards for the community, we fulfill our duty as an auxiliary — a helper — to them, thereby achieving one of our several objectives.

There are four priority projects outlined for the year. They are AMEF, Today's Health, Recruitment in Paramedical Careers, and Safety — safeguarding the health of America by observing safety in every activity.

The auxiliary is an important organization in our communities. Success in our priority projects will provide good public relations. It is not essential that all our projects be on a large scale. Each chairman should make herself aware of the limitations and potentialities of her own group, then gear her activities to the specific needs of her community.

Plan programs for meetings which help members to understand the overall program of the auxiliary. Why not start with a history of the American Medical Association and the American Medical Auxiliary? When we are informed members, we all become more interested members.

Many interesting programs may be built on our priority projects. Excellent material is available from the national auxiliary in the way of films, pamphlets and skits.

Through a study of medical education, we will understand the necessity for continued support of the AMEF. By making ourselves aware of the need for medical personnel, we will be encouraged to recruit young people for paramedical careers.

An integral part of our program, "To Safeguard Today's Health for Tomorrow," should certainly include a program based on accident prevention in the home and on the highway. Rehabilitation of the handicapped, care of the aging and chronically ill; and mental health programs should be included.

Much can be accomplished to guard against the infiltration of adverse trends in medicine by being alert to new developments in medical legislation. Up-to-date reports on legislation should be included in meetings frequently. In this election year, know your candidates, what they stand for, and be sure to vote.

A good program is a well planned program. Plan it for the entire year. Incorporate in your program what your members want; but more important what they need, as well! Begin your meetings on time, finish on time. Allow time for fellowship. Above all, let us not lose sight of the basic objective of our organization: to assist the American Medical Association in its program for the advancement of health, thereby helping "To Safeguard Today's Health for Tomorrow."

MRS. ROBERT A. STRATTON,
Yuma, Ariz.

PATHOLOGY FOR THE PHYSICIAN
by William Boyd, M.D. 6th ed. 900 pages. Illustrated. (1958) Lea & Febiger. $17.50.

Formerly published as *Pathology of Internal Diseases*, this internationally acknowledged work is, in effect, a new book rather than a new edition. The new title conforms more closely to the subject of the text, which presents pathology as a sum total of its parts, rather than as the pathological changes in the organs of internal diseases. Dr. Boyd stresses correlation of the physiological alterations which lead to pathological changes and the relation of symptoms to lesions. Of equal interest are the sections on general considerations which introduce each chapter. In these, the newer cytological, physiological and biochemical aspects of the subject are considered. This new format will be of extra value to those studying for board examinations. The author is from the University of Toronto.

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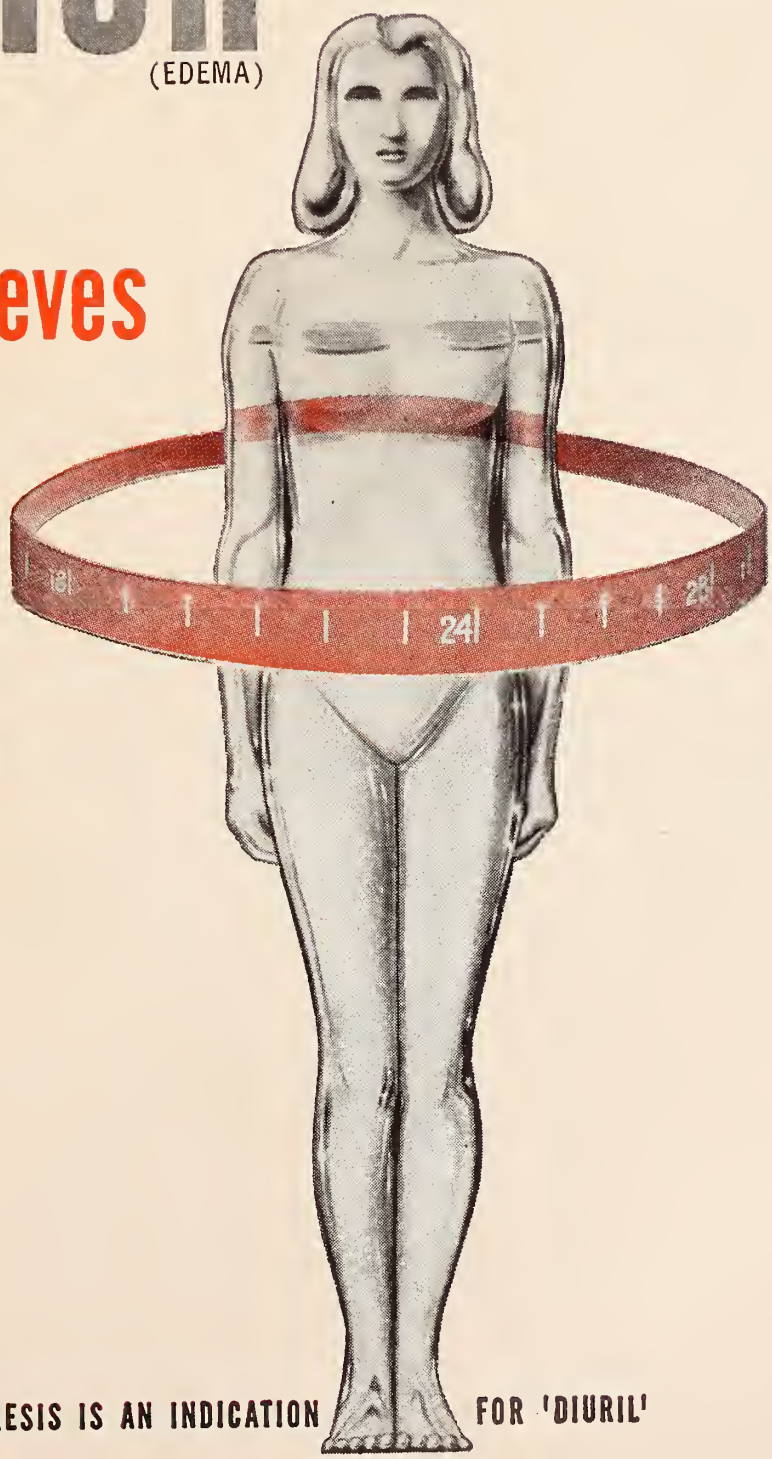
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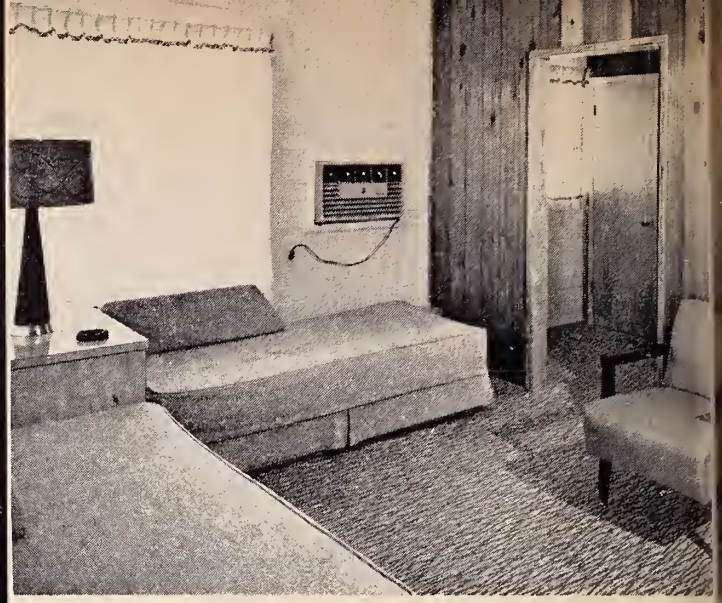
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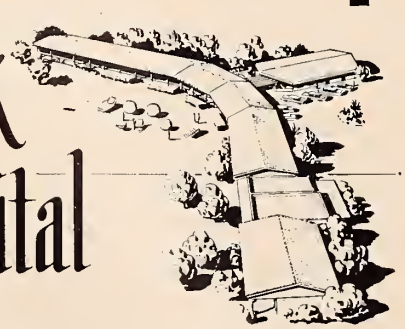


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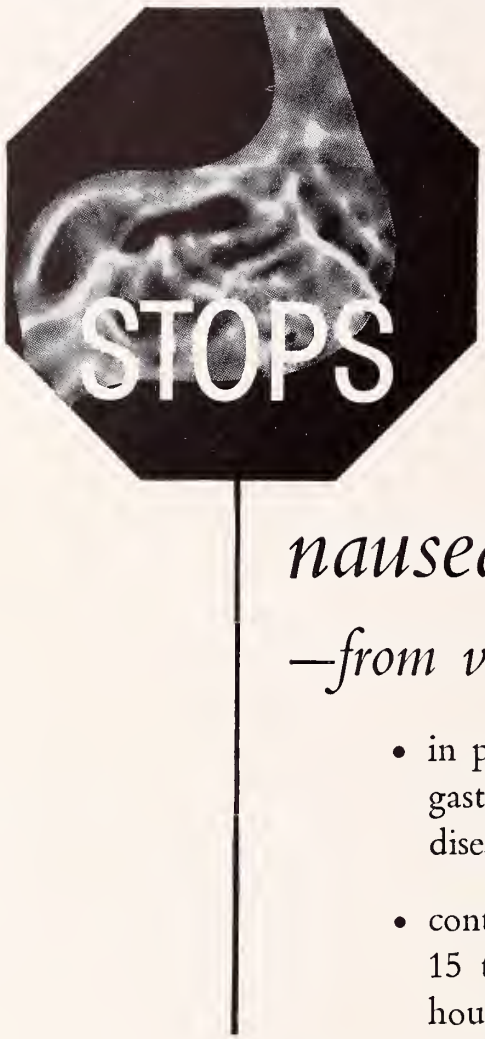
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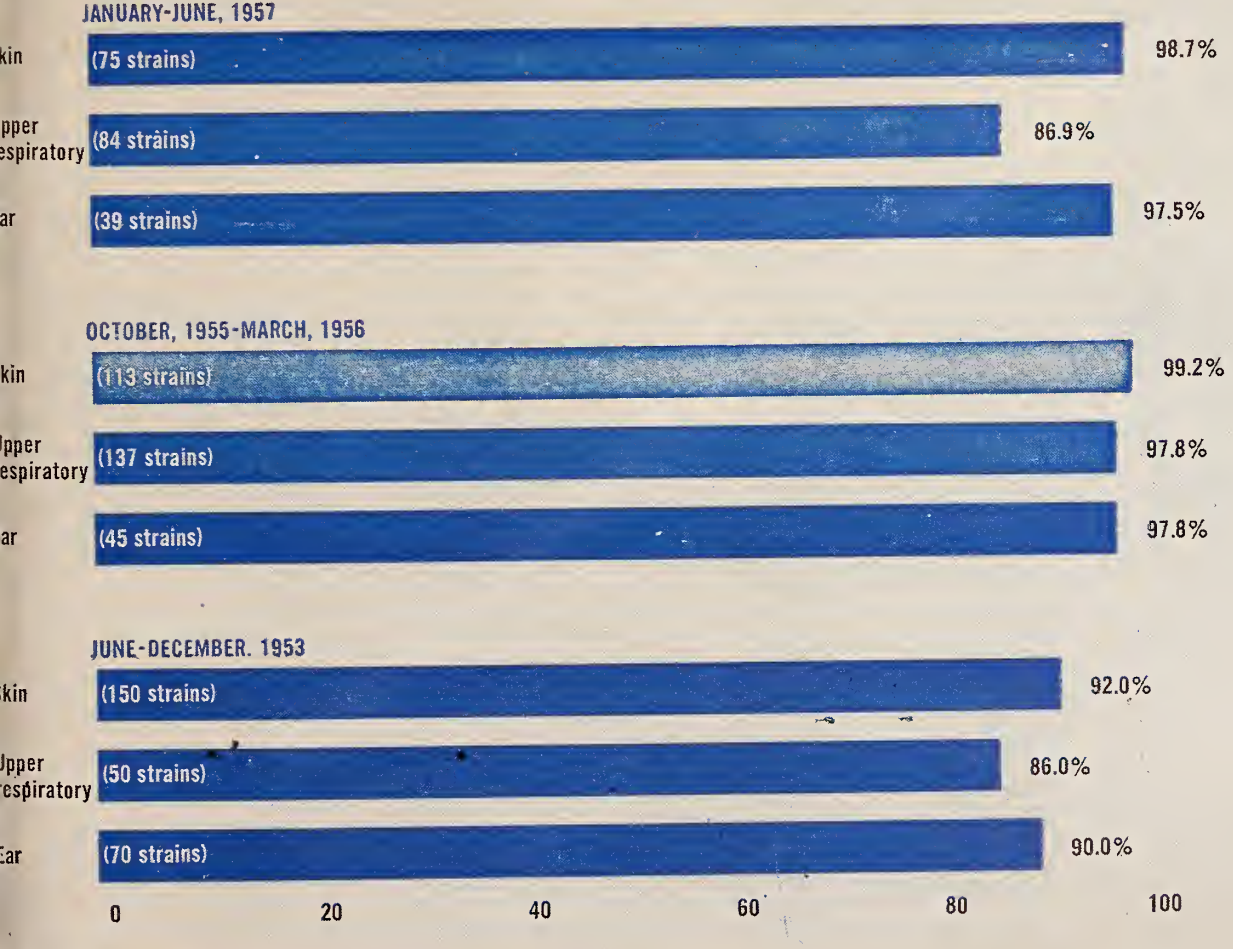
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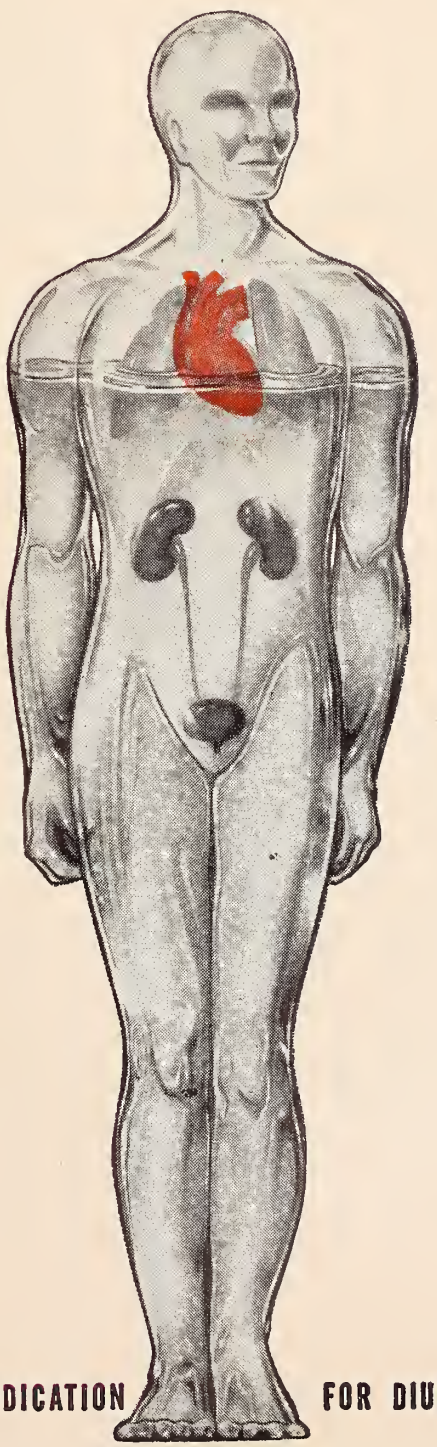
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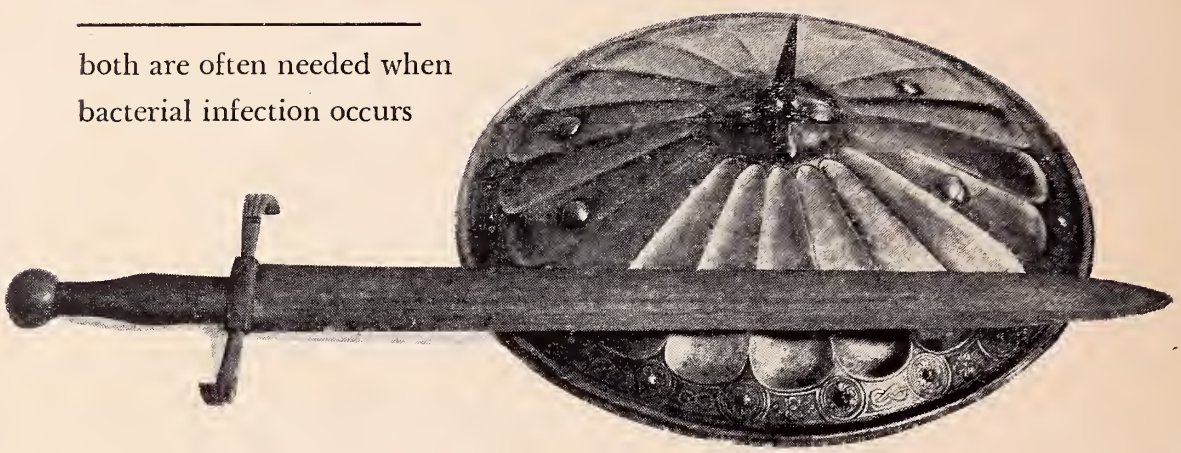
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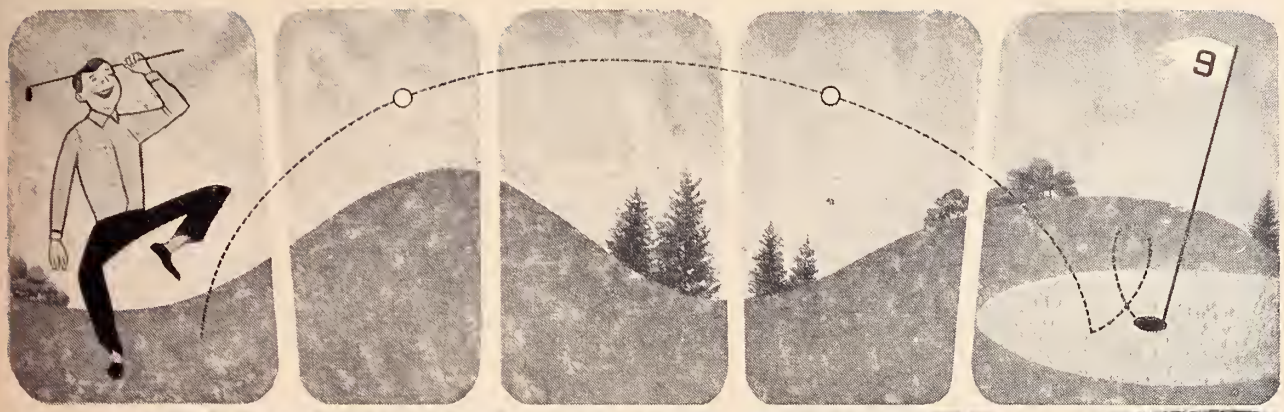
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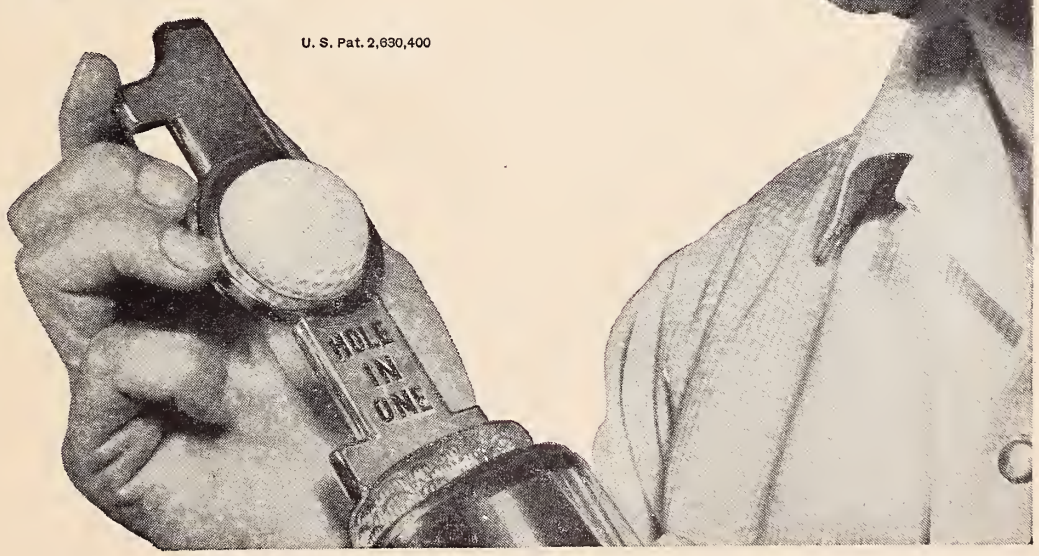
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Dihydrocodeinone Bitartrate	5 mg.	6.5 mg.
(Warning: May be habit-forming)		
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Pyrilamine Maleate		12.5 mg.
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1. Welsh, A. L., and Ede, M.: J.A.M.A. *166*:158, 1958.
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5. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.



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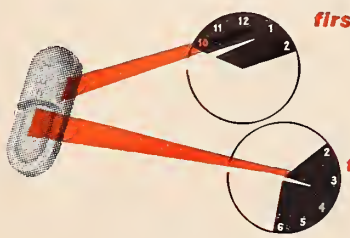
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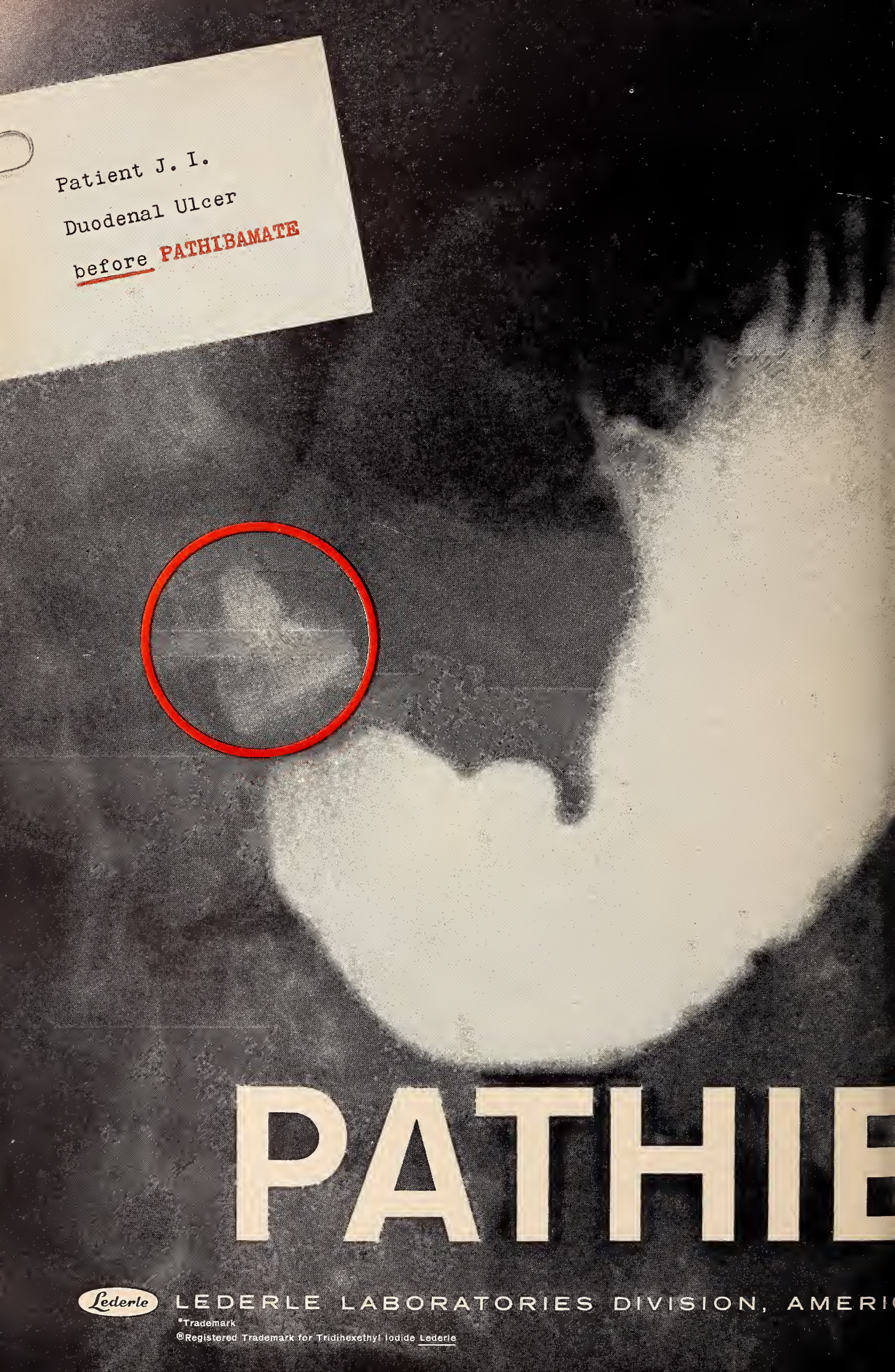
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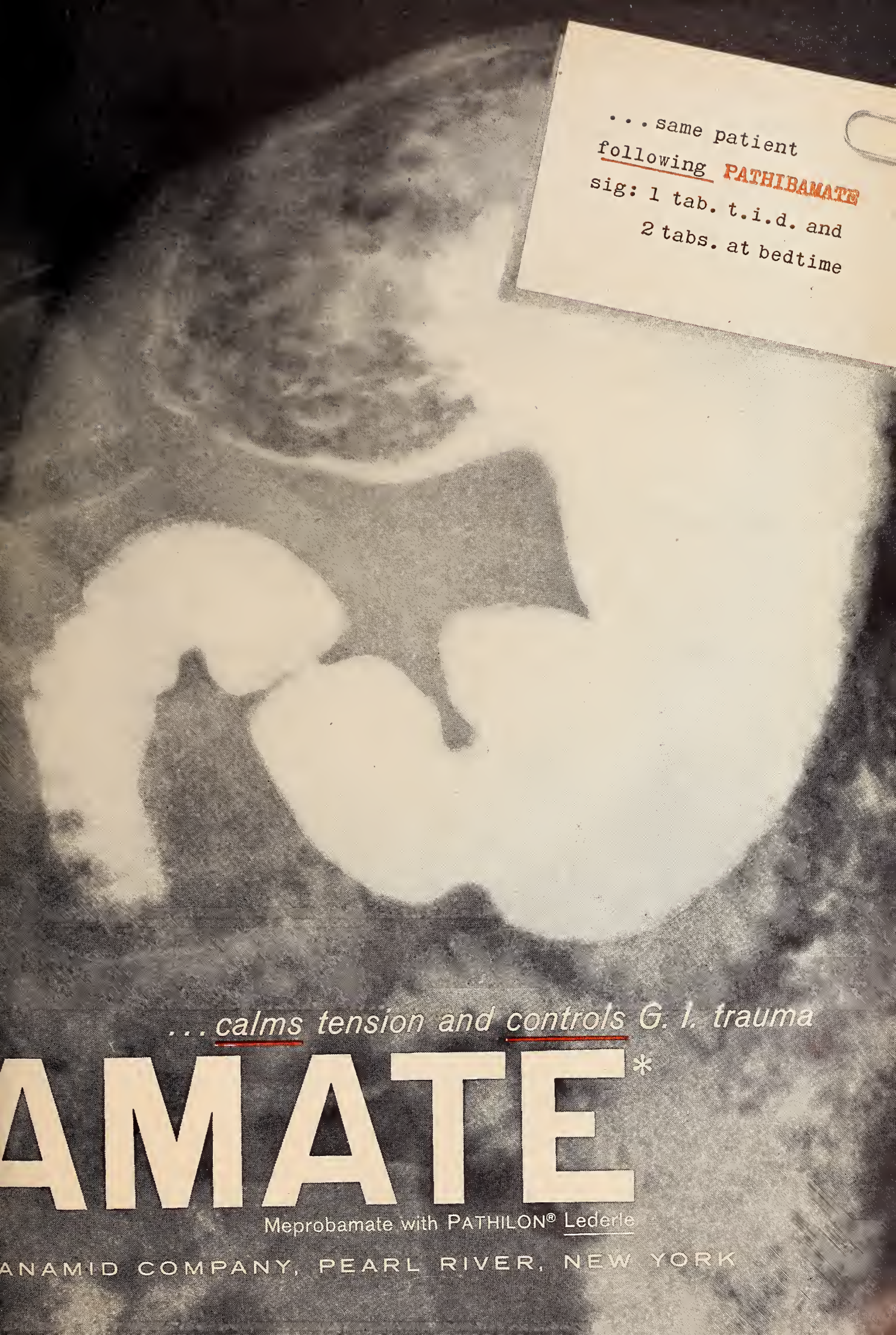
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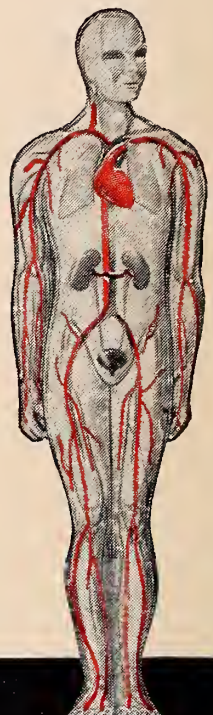
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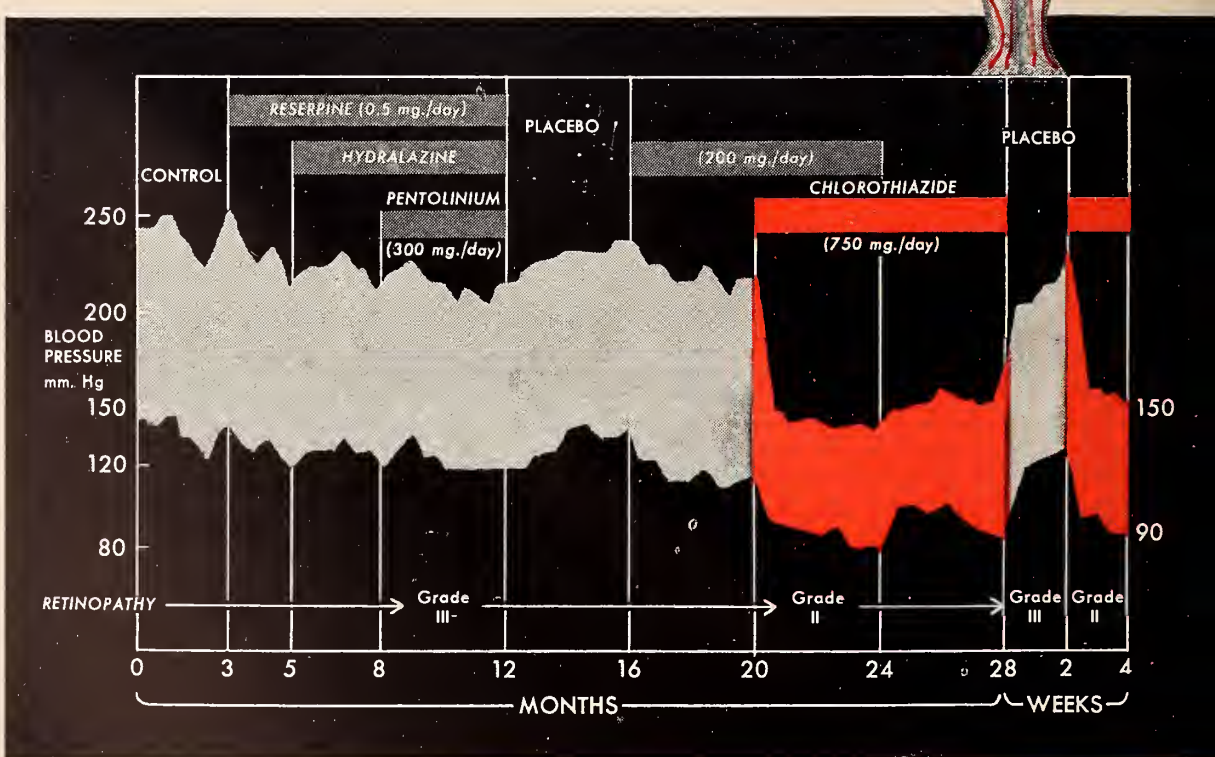
Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

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In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 1957.

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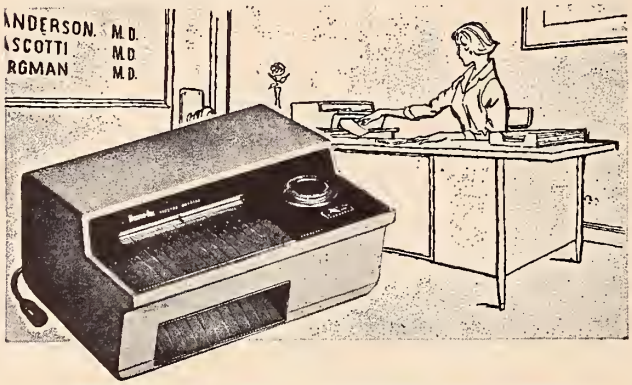
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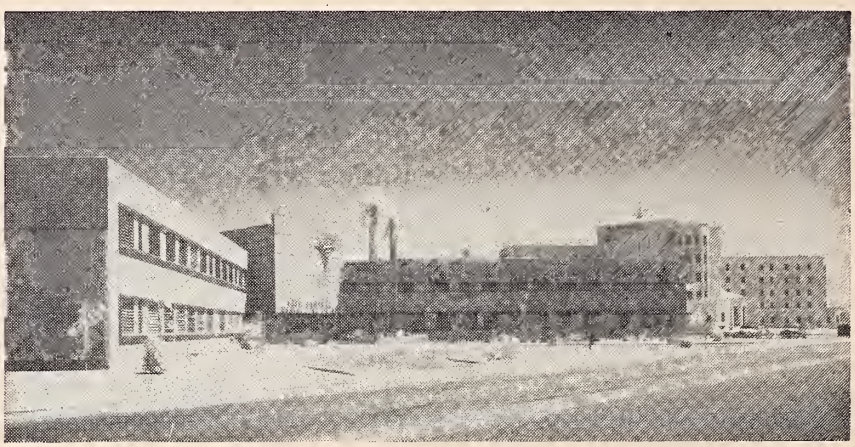
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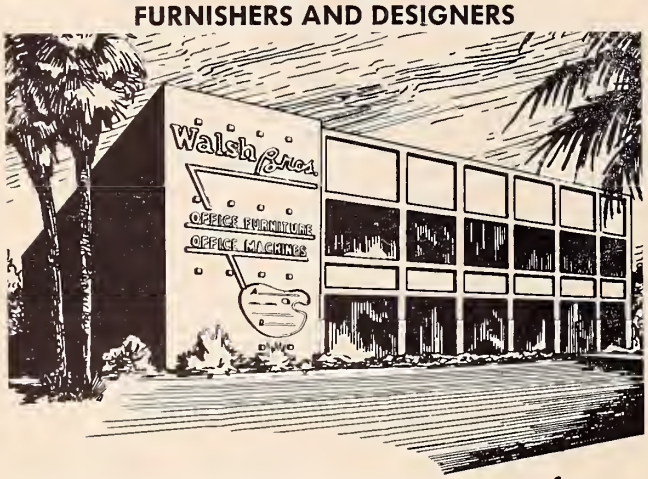
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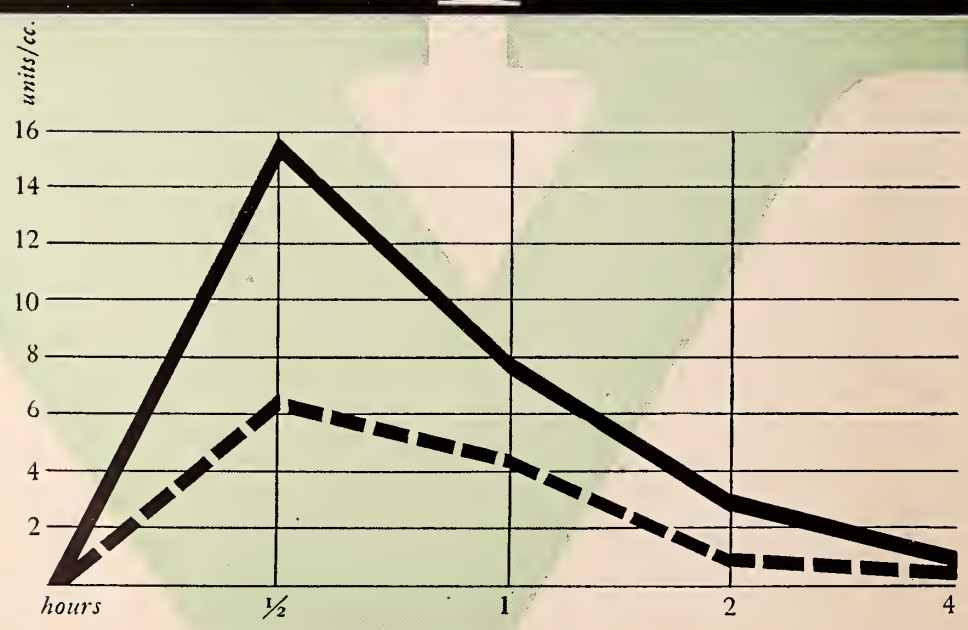
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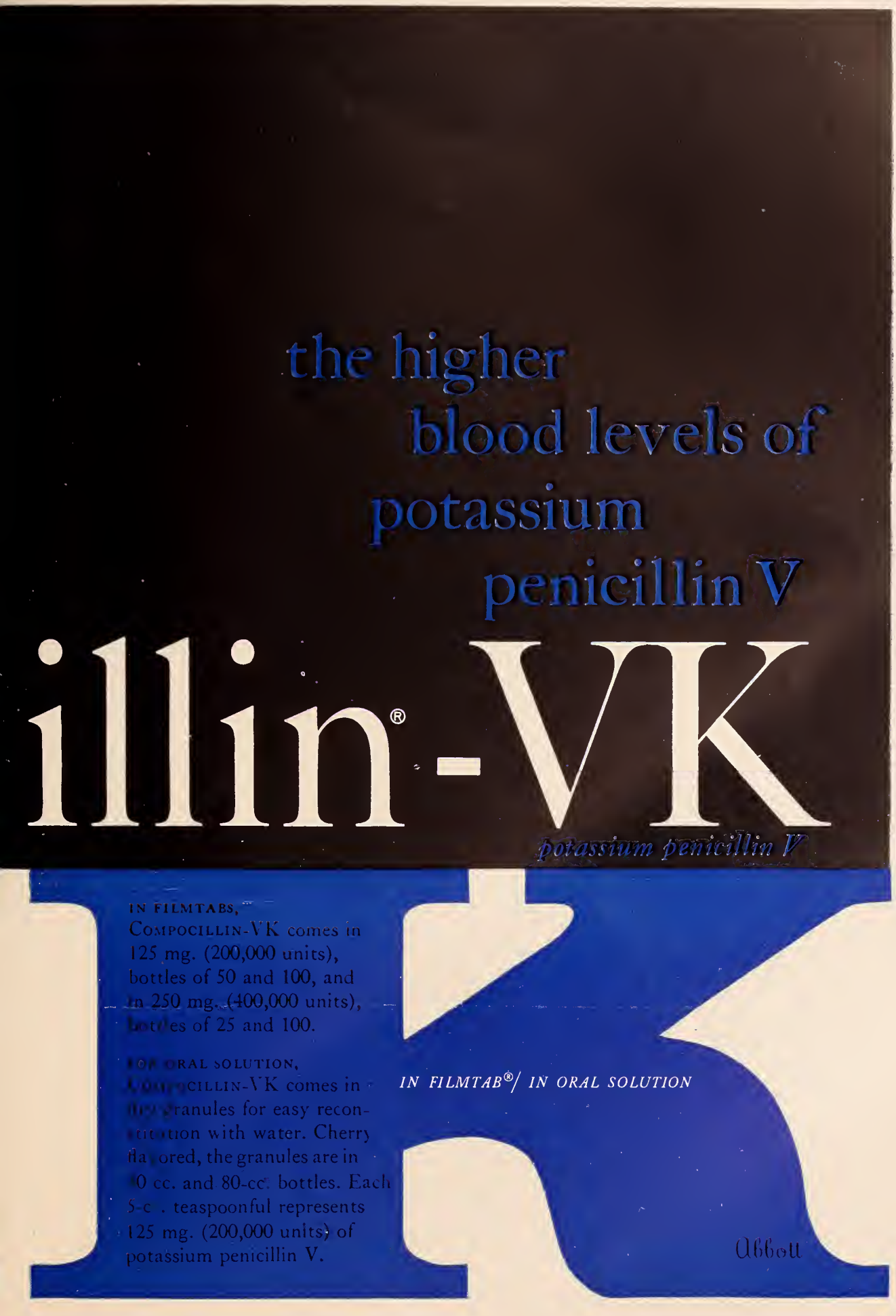


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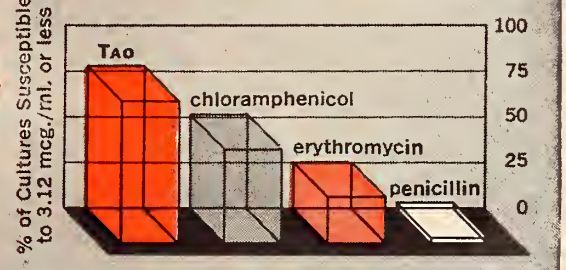
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Improved	28 (13%)	8 (5%)	7 (9%)
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References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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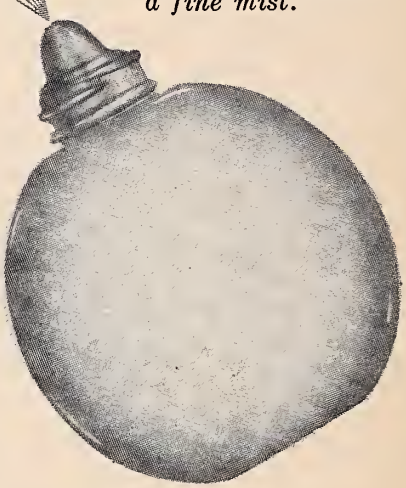
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STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:*504, Dec. 1957.*

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*Finnerty, F. A., Jr.: New York State J. Med. 57:2957 (Sept. 15) 1957.

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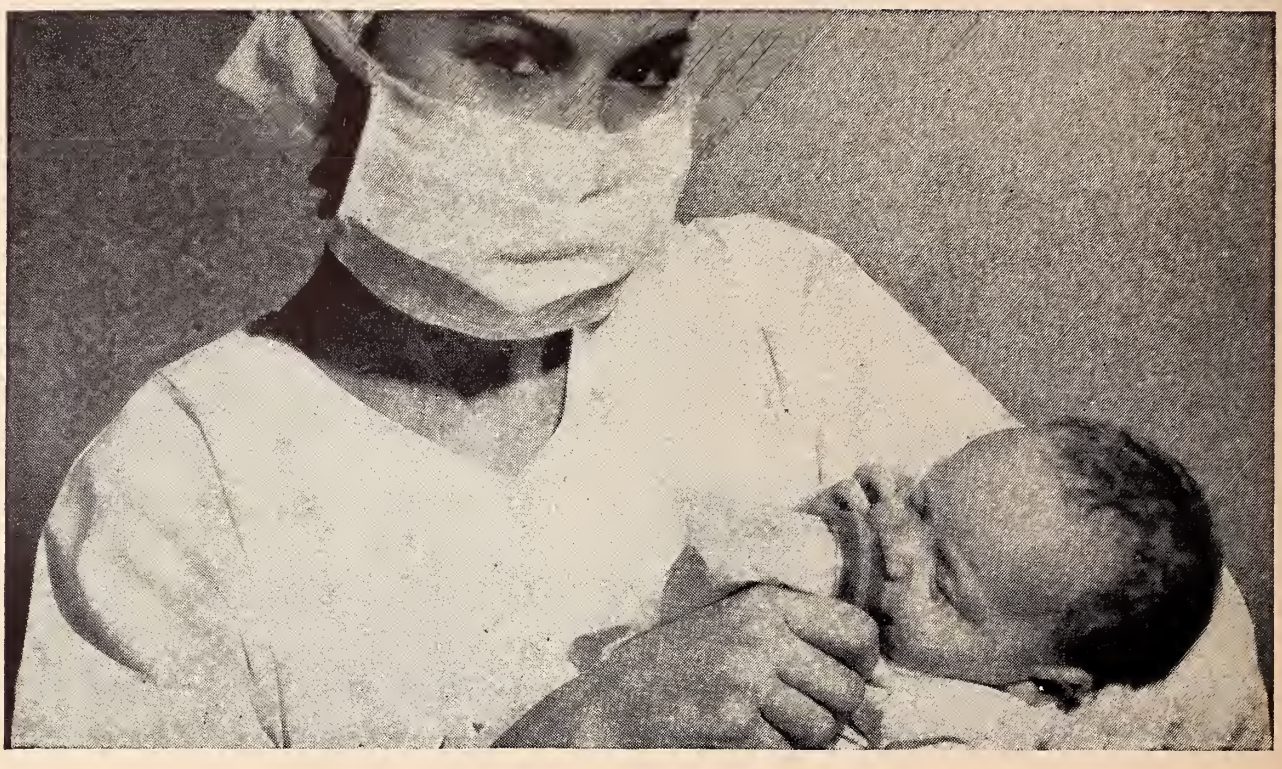
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Birth	10	10	2	3	6	320
1	12	13	3	4	6	532
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760
7	28	11	3	7½	5	740
8	30	11	2½	8	5	750
10	32	9	2	8	5	760
12	32	9	0	8	5	640

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Age Months	Evaporated Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	812
7	14	21	3	7	5	796
8	15	20	2	7	5	780
10	16	16	1	8	4	764
12	16	16	0	8	4	704

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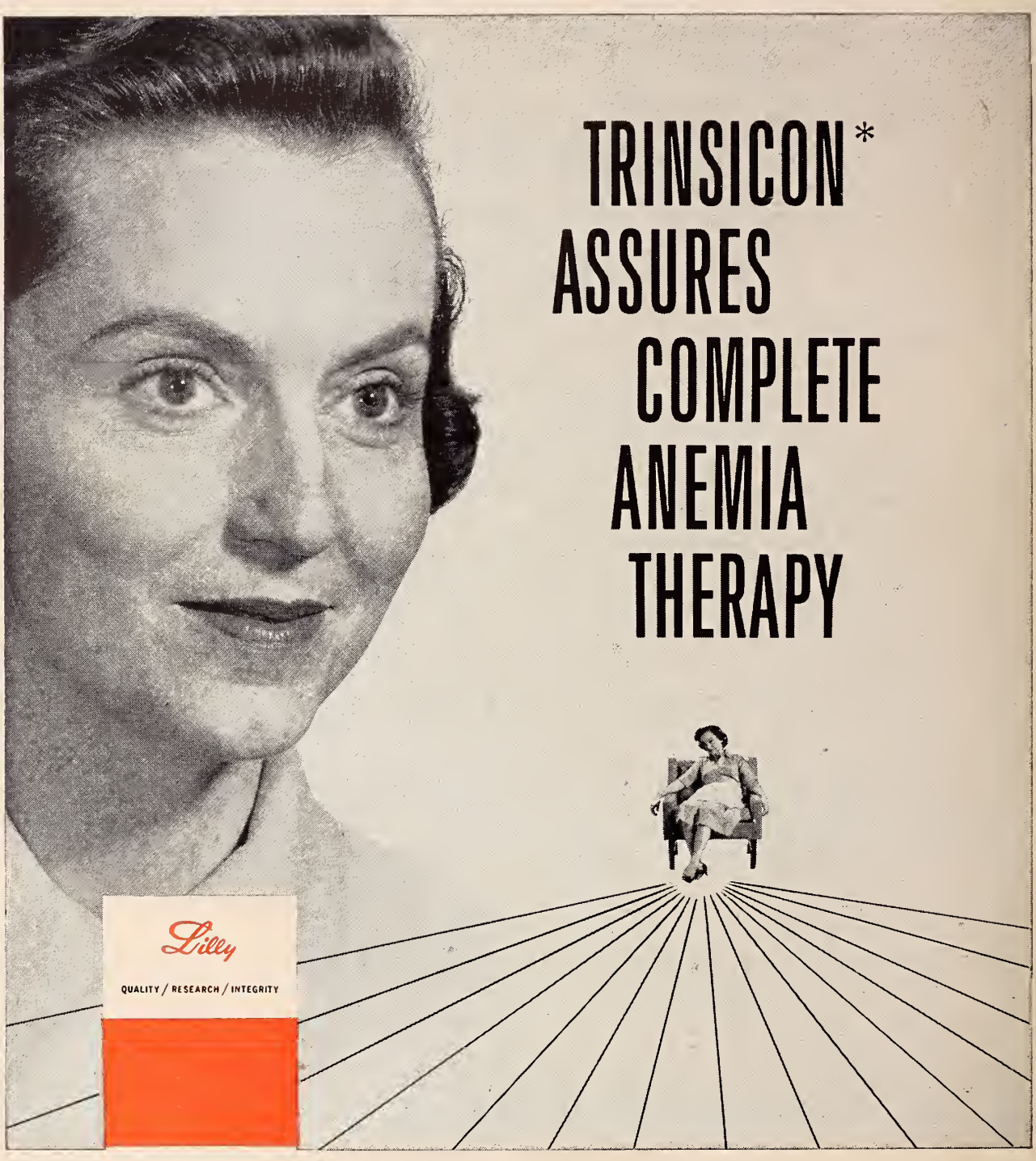
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ARIZONA MEDICINE
Journal of Arizona Medical Association

VOL. 15, NO. 11 NOVEMBER, 1958

Original Articles

HIROSHIMA AND NAGASAKI*

By Brigadier General Crawford F. Sams, Medical Corps, U. S. Army (Ret.)

DR. KINOSITA has discussed the Japanese medical planning and the medical situation at Hiroshima and Nagasaki and how it functioned. I shall attempt to discuss the medical situation as we found it Aug. 13, 1945, on our arrival in Japan from the Philippines, the action we took to attempt to assist the Japanese medical personnel, and the studies undertaken during and immediately following this period; in order to develop certain facts and principles that we may apply these principles to our own planning in the event of thermo-nuclear attack on the United States.

It must be emphasized that all of the principal Japanese cities, particularly the 30 metropolitan areas, had been partially destroyed throughout Japan as the result of fire and high explosive raids. In the case of Nagasaki and Hiroshima, atomic weapons were used. Most of this destruction, which included the complete destruction of some 2.4 million homes, occurred in the last six months of the war. The death toll was the surprisingly low figure of 269,000 out of the population at that time of 72 million people in Japan. This figure includes the dead at Hiroshima and Nagasaki.

It might be well to say a few brief words about the reasons behind this low casualty rate in the face of a nationwide attack. Following the Doolittle raid in 1942, Japan for the first time apparently became aware of the fact that her highly vulnerable cities could actually be subjected to bombing. As a result, a voluntary evacuation plan was undertaken which was only partially successful. The plan was to evacuate from target areas all non-essential people who were to be dispersed throughout the small villages in the country. However, when the bombing raids began on a major scale early in 1945, this voluntary evacuation plan which was estimated to have been about 40 per cent successful was made mandatory.

As an example of the comparative success of this plan, the pre-war estimated population of the Tokyo-Yokohama metropolitan complex, which was a major industrial target, was 8 million people. At the time the fire raids in March 1945 began, this population had been reduced to approximately 3 million persons as a result of the evacuation. Therefore, the number of individuals per unit of area in the target area among which casualties could be produced was approximately one-third of the normal population density.

It must be emphasized that this evacuation was not a temporary exacuation in which the population poured out of the city at the signal for an air raid with the intention of returning when the raid was over. That type of "tactical

*Presented at the Second 12th Naval District Symposium on Medical Problems of Modern Warfare and Civil Disaster at the U. S. Naval Radiological Defense Laboratory San Francisco, Calif. June 19, 1958

evacuation" would have been comparatively ineffective in reducing the casualty rate when compared to the evacuation plan which was to remove non-essential persons from target areas for the duration of the war. These people were semi-permanently displaced. In fact, some were not permitted to return to their homes for some three years after the war when sufficient reconstruction had been carried out to provide homes and jobs for these "displaced persons."

Planning Is Important

In the case of Hiroshima, the pre-war population was estimated at some 380,000. Under the evacuation plans, it had been reduced only to about 250,000 so far as the permanent residents were concerned. However, a new evacuation had been ordered just before the attack, and from all we can learn many relatives had entered the city to assist families in their evacuation. Therefore, there is considerable uncertainty as to the actual number of people in Hiroshima and in Nagasaki at the time of these two attacks. Certainly the population density at the time of attack was greater than that in other major target areas.

This all to brief description, then, illustrates one principle in reducing casualties. That principle is not the temporary last-minute rush for the exits when an air raid alert occurs, but is in the planned evacuation of non-essential people from target areas for the duration of the war, when the first indications of what might be called "strategic warning" are made known.

The second point I should like to make is the availability of medical means — in terms of medical personnel, medical facilities (particularly hospitals), and medical supplies. In the Japanese evacuation plan as carried out, very few of the medical personnel who were principally concentrated in the metropolitan target areas were evacuated. As a result, at Hiroshima, 65 doctors out of 150 were dead or injured; 1,654 out of 1,780 nurses were dead or injured. At the Red Cross Hospital — the largest surviving hospital — only six out of 30 doctors were able to work in a 400-bed hospital and 10 out of 200 nurses. The Communications Ministry Hospital was more fortunate in that 20 doctors — some of whom were injured — were available for a 125-bed hospital. At Nagasaki, approximately half of the teaching faculty at the medical school and one-fourth of the medical students survived the attack.

Also, as in this country, the concentration of medical facilities, that is, hospitals and clinics, and the medical supply and pharmaceutical manufacturing industries, was largely within the target areas. During the nationwide destruction, 25 per cent of all of the hospitals of Japan were destroyed throughout the nation. In the case of Hiroshima, out of eight hospitals located in that city which included the Red Cross Hospital, the Prefecture Hospital, a military hospital, and the Communications Ministry Hospital, as well as private hospitals, only three survived, and they were damaged. The Red Cross Hospital and the Communications Ministry Hospital in reinforced concrete buildings were heavily damaged, and a portion of the Communications Ministry Hospital was gutted by fire. The frame buildings of the military hospital and of the Prefecture or State Hospital, as well as the private hospitals, were collapsed and burned.

In Nagasaki, the Nagasaki University Medical School and Hospital, which was within two kilometers, that is, less than a mile from the ground zero, was partially destroyed. The frame buildings were completely destroyed — the principal building of reinforced concrete was gutted by fire. This was the only major hospital in Nagasaki to be destroyed. The blast, thermal and radiation effects were confined in a long narrow valley of about two miles in length by half a mile in width. The major portion of the city was protected by a range of hills. As a result, the insurance hospital, a municipal hospital, and others, were not damaged.

The second lesson, then, to be emphasized is that medical personnel are as vulnerable to injury and death from thermo-nuclear weapons as are other humans. They cannot readily be replaced.

Therefore, as a principle, we should consider the immediate evacuation of the medical personnel from our metropolitan target areas when strategic warning of impending war is given. Only that portion of the medical personnel should remain behind who are required to provide minimum medical service for the essential people who must remain in the target areas. This is a difficult principle to carry out. There will inevitably be charges on the part of the uninformed that the medical personnel have aban-

doned their patients in order to save themselves. This evacuation should not be on a voluntary basis. It should be mandatory. The numbers of medical people required to remain in target areas to provide minimum medical services for remaining essential personnel can be held very low if the policy is also carried out, that hospitals within the target area should be emptied of patients. Patients who require prolonged treatment and who may be admitted to hospitals during the period of strategic evacuation should immediately be moved to outlying medical installations.

In the case of the Communications Ministry Hospital in Hiroshima, the patients had been evacuated to outlying areas a few days before the attack occurred. This had not been done at the Japanese Red Cross Hospital in Hiroshima or other hospitals there, nor at the University Hospital in Nagasaki. The patients in those hospitals were themselves killed.

Medical Supplies and Pharmaceuticals

We quickly found that the civilian hospitals and civilian doctors in Japan had only very limited quantities of drugs and equipment with which to treat the masses of casualties — not only in Nagasaki and Hiroshima, but throughout the country. Approximately 50 per cent of the medical supply and pharmaceutical industries were destroyed. The civilian hospitals and doctors had had no X-ray film for almost three years. They had only paper dressings and a very limited quantity of cotton dressings which had been washed and rewashed over and over again. Drugs were in very short supply. The military had been given first priority in procurement on all production of such supplies and equipment. We found large stocks of medical supplies and equipment in military medical depots on our arrival in Japan. When I discuss the treatment of casualties, I will re-emphasize the importance of this dearth of supplies in relation to delayed deaths.

Therefore, as a third principle, we must emphasize that in the event of war, there must be adequate production of medical supplies and equipment not only for the military forces, but for civilian medical installations, and there must be adequate reserves of medical supplies for the civilian population stockpiled before the war as it is being done in locations outside of the target areas, if deaths from injury are to be held to a minimum.

A fourth lesson, which we learned, concerned the complications which may result from lack of co-ordinated effort. The Communications Ministry Hospital, for instance, in Hiroshima, felt its basic responsibility was to the communications workers. The military medical personnel felt primary responsibility for military casualties. There was some difficulty in co-ordinating efforts in which supplies, limited as they were, could be made available to the various surviving hospitals on an equitable basis.

This emphasizes a fourth principle. In order to insure maximum efficiency and maximum utilization of the limited medical means — not only of personnel but of facilities — in such an emergency, all medical personnel and medical facilities together with stocks of medical supplies and equipment — must be placed temporarily, at least, under a single jurisdiction. There can be no priority because of occupation or other criteria for the treatment of casualties by any facility.

As soon as we obtained information concerning the situation, our first step was to send some 14 tons of medical supplies, including dressings, plasma, and the antibiotic, penicillin, in seven aircraft to Hiroshima. Along with these supplies, certain medical personnel, including Col. "Scotty" Oughterson, surgical consultant to the theatre surgeon, were sent to distribute the supplies and assist the Japanese in the care and study of the casualties in that area. Subsequently, Japanese medical supplies and equipment, which were uncovered in military medical depots outside of target areas and placed under the jurisdiction of the occupation forces, were also distributed — not only to Hiroshima, but to the surviving hospitals in Nagasaki, as well as to other civilian hospitals. It must be realized that many of the casualties had already moved out of the Hiroshima and Nagasaki areas and were, in some cases, located in hospitals at some distance from those two target areas. We found some casualties in hospitals in Tokyo. The furthest removed casualties which I personally encountered were in Pusan, in Korea. They had gone there in the general exodus of Koreans back to their homeland even though they were badly burned. The requirement for increased availability of medical supplies was not limited

to the hospitals in the Nagasaki-Hiroshima area.

What about the first studies related to the types of casualtics produced by an atomic attack? Our studies, together with those of the Japanese and subsequent groups of Americans, may be summarized briefly as follows: The casualties might be considered or classified in several ways — the immediate casualties, and the delayed casualties, in relation to the time at which they sought medical attention. On the other hand, these two groups may be rearranged into a classification based on the causative agent, such as, mechanical, thermal, and radiation injuries. As medical people, we, of course, are interested in causes of death, but in such a situation we are interested, or should be more interested, in survivors. The immediate causes of death in Hiroshima were considered to be: Sixty per cent caused by burns, and in Nagasaki about 95 per cent. Among the survivors: Mechanical injuries occurred in about 58 per cent, burns in about 45 per cent, and radiation effects were found in some 34 per cent.

Value of Time Factor

I should like to emphasize the time factor because it is this factor which, if utilized properly, may make an apparently unmanagcable medical problem become a manageable one. Contrary to the widely publicized popular concept that a bomb went off, a city disappeared, and 100,000 people lay down and died in Hiroshima, time was an important element. According to the best available information which was obtained from the Japanese who werc there, and from study of the evidence afterwards; when the bomb went off, several thousands people died instantly. It matters little to these people whether the blast, the intense thermal wave, or the high intensity of radiation killed them. They died instantly from these three causes or combinations of them. About two out of three houses in Hiroshima were finally destroyed. But it took time to destroy these houses. The city caught on fire, and there is considerable uncertainty as to how much was caused by the immediate thermal wave and how much was caused by cooking fires and broken electric wires when several thousands of these light frame buildings were knocked down by the blast. In any event, it took about 36 hours to burn up 60,000 buildings out of 90,000. This is an important element because, from all of the evidence available, a large percentage of the estimated 21,000 dead at the end of 24 hours largely occurred among individuals who were trapped in these burning buildings.

This illustration should give us another principle — that immediatc rescue efforts of injured individuals trapped in buildings which had been totally or partially collapsed may reduce drastically the total number of fatalities as the result of spreading fire.

In Nagasaki, in which the target area in the valley I have described consisted largely of industrial manufacturing plants as compared to a relatively large proportion of homes and stores in Hiroshima, the ratio of survivors to killed was lower.

In Hiroshima where our studies were focused initially, some 21,000 fatalities out of an estimated 250,000 to 350,000 population occurred in the first 24 hours. Some 47,000 people died of their injuries within the next six months. Of these, approximately 18 per cent died from the effects of radiation.

I emphasize this because it is these 47,000 people who initially survived, but who died within six months, that we should study medically if we are going to reduce such delayed deaths in the future. I have asked many consultants early in 1945, who saw the patients, to give me their opinions as to the numbers of these people who might have been saved if they had received adequate medical care within the first few days following their injuries. Remember that most of these deaths, 82 per cent, were among those who had received mechanical and burn injuries. There have, of course, been differences of opinion expressed, but estimates by some of our best surgical and medical consultants have been that approximately 80 per cent of these people could have survived had they been treated initially with modern methods and if modern drugs and antibiotics were available in adequate quantity.

I should like to point out that in visiting Hiroshima and seeing these cases in the first part of September, three weeks after the bomb, and subsequently visiting Nagasaki, and in talking to the doctors through interpreters, I found that the principal methods of treatment had been the use of iodine or mercurochrome in open wounds, whether they involved compound fractures, lacerations, or penetrating wounds from

flying debris. In burns, little was done other than to apply saline solutions if they were available. Subsequent infections was the rule rather than the exception.

Earlier Treatment Vital

With the exception of a few individuals, most of the Japanese doctors in the hospitals that I have mentioned, which I visited even as late as September, were not aware of the fact that the bloody diarrheas of their delayed cases were the result of radiation illness rather than bacillary dysentery. Dr. Suzuki, professor of surgery at Tokyo Imperial University, who was also head of the medical division of the Japanese National Research Council, and who had done some work in radiation at the University of Pennsylvania in the United States, was the first of the Japanese doctors, and for a time the only one so far as I know, who diagnosed the early symptoms of radiation sickness.

You, of course, are all familiar with the various stages of the development of the signs and symptoms of radiation illness in its severe, moderate or slight manifestations over a period of time extending four to six weeks. In handling radiation injuries, frequently with complications of mechanical or thermal injuries, early treatment of the shock phase will save many early deaths. During the delayed effects, such as the hematopoietic depression phase which may not occur in humans, depending upon the dose, until two to four weeks later, the use of antibiotics will prevent the many deaths which occurred from bacteremias. It was found by the Japanese that nutrition was an important element in ultimate recovery in the repair of tissue damage, which is in accord with our own scientific work.

From this brief discussion of casualties, we may therefore, perhaps, develop or rather re-emphasize another principle. The early and adequate treatment from a medical standpoint of mechanical and thermal injuries as well as radiation injuries may markedly reduce delayed deaths. By early treatment I do not necessarily mean treatment within the first five minutes. I am discussing treatment over a period of days, and, in some cases, weeks. It must be emphasized that many of these injured, particularly radiation injury cases, migrated out of the target areas and dispersed themselves in the homes of relatives and friends at points far distant from the target areas. Some did not seek medical attention until a month to six weeks after injury. All medical personnel throughout the nation, particularly in the smaller communities outside of target areas, must be indoctrinated with the basic principles of the mass care of casualties resulting from thermo-nuclear attack.

I have, all too briefly, mentioned a few of the lessons we have learned during the early days of 1945.

Many groups came to Japan to visit the widely publicized Hiroshima and Nagasaki disaster areas. There were groups from the Joint Commission for the Effects of the Atomic Bomb in Japan, from the Strategic Bomb Survey Group, and there were army, navy, and public health service groups and consultants from the Manhattan Project. They all sought the same basic medical information.

It was finally decided, and I should like to express appreciation to Dr. Stafford Warren and Dr. Shields Warren for their efforts back in the United States after visiting Japan, that the Atomic Energy Commission should make a contract with the National Research Council which, in turn, established a corporation known as the Atomic Bomb Casualty Commission, to carry out a continued and co-ordinated research program. This Atomic Bomb Casualty Commission was established and attached to my office at general headquarters in Japan. Initially, temporary laboratories and subsequently permanent laboratories and housing were established in Hiroshima with control groups in the neighboring city of Kure to study the delayed effects of radiation illness. Such studies are being carried out today by this group and a parallel group of Japanese research personnel, which I organized in the newly created National Institute of Health, a research organization under the Ministry of Health and Welfare, so that this extensive program which must be carried out, we hope, for several generations could continue after the termination of the occupation of Japan. It has been so continued. This program has developed some of the data available today on delayed radiation effects in masses of humans. So far, the data has shown an increase in the occurrence of cataracts and leukemia, and we hope that eventually, as time passes, knowledge will be obtained as to development of late malignan-

cies and genetic effects, should they become manifect in these groups. I am sorry that in the early studies we did not establish a major group in Nagasaki. Had this been done, the studies on the comparative effects of neutrons and gamma radiation might have been sorted out a little better.

Conclusions

I have briefly discussed the situation in Japan as we found it on Aug. 30, 1945. I have tried to relate the situation in Hiroshima and Nagasaki to the over-all picture of destruction and death throughout that nation of 72 million people. I have tried to point out what I believe are some medical lessons and principles which have been learned as a result not only of the studies at Hiroshima and Nagasaki, but of the total destruction in Japan which may be useful in our own planning in the handling of casualties in the event of thermo-nuclear attack in the United States. These principles are:

1. At the first indication of impending war which may involve thermo-nuclear attack on this country, planned evacuation of all non-essential personnel from target areas *for the duration of the war* must be undertaken.

2. All medical personnel in excess of the number required to provide minimum medical services for the personnel remaining in target areas must be mandatorily removed from the target areas.

Patients in hospitals at the time of the beginning of the evacuation and those subsequently admitted requiring prolonged treatment, should be evacuated to outlying hospitals.

3. Provision must be made, as it is being made now in this country, for the stockpiling of essential medical supplies and equipment outside of target areas for the care of the civilian population.

4. At least during the period of emergency, all medical personnel, facilities, medical supplies and equipment in and around a target area must be placed under a single jurisdiction to insure maximum efficiency and utilization of these very limited medical means.

5. Immediate rescue efforts must be made to recover those injured but trapped in partially or completely destroyed buildings if mortality, as a result of subsequent fire, is to be kept to a minimum.

6. Early, and by that I mean within a period of days in most cases, adequate treatment of mechanical, thermal, and radiation injuries will reduce mortality among survivors by an estimated 80 per cent.

BOOK REVIEWS

AUSCULTATION OF THE HEART
by **Abe Ravin, M.D.** 166 pages. Illustrated. (1958) Year Book. $6.

The basic principles of both normal and pathologic heart sounds have been condensed from the works of many authorities. The text is replete with designs illustrating by graphic methods Dr. A. Ravin's interpretations and recordings of auscultatory findings. Recommended for students and practitioners.

Stacey's Medical Books, San Francisco, Calif.

PSYCHOENDOCRINOLOGY PEDIATRIC GYNECOLOGY
by **Goodrich C. Schauffler, M.D.** 4th ed. 349 pages. Illustrated. (1958) Year Book. $9.

In his fourth edition, the author again gives excellent coverage and clarity in this rather complex field. He also adds some very sound philosophy in several controversial areas. The illustrations are numerous and excellent. Both pediatricians and general practitioners will continue to approve of this.

Stacey's Medical Books, San Francisco, Calif.

ROENTGENOLOGY OF THE CHEST
edited by **Coleman B. Rabin, M.D.** 484 pages. Illustrated. (1958) Thomas. $19.50.

Sponsored by the American College of Chest Physicians, the aim is to continue the education of the general phyiscian in the thoracic field. This is well carried out. Written by 50 leading roentgenologists, surgeons, and internists, diseases of the lungs and heart are well, though briefly, covered. A thumbnail sketch of normal roentgen anatomy is included.

Stacey's Medical Books, San Francisco, Calif.

CANCER, Vol. 3: Additional Pathological Aspects
edited by **Ronald W. Raven, FRCS.** 484 pages. Illustrated. (1958) Butterworth's. $18. (To be published in six volumes, plus an index volume. Sold only by the set but billed at $18 per volume as published. Per set $126).

Twenty-two experts of international renown contribute to another volume of this monumental work. The topics are: Additional pathologic aspects, geography of cancer, occupational cancer, cancer education, and cancer detection.

Stacey's Medical Books, San Francisco, Calif.

THE USE OF PENICILLIN V IN ACUTE RESPIRATORY INFECTIONS OF CHILDHOOD

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THE TREATMENT of acute respiratory infections of bacterial origin in children is one of the most frequent problems confronting the pediatrician or general practitioner. While virus infections should be handled without antibiotics, those due to hemolytic streptococci, hemolytic staphylococci, or pneumococci, need specific therapy. The search for an ideal treatment for these infections goes on. Injections of penicillin, recommended by some as the best form of attack on streptococcus infections, have the twin disadvanges of making young patients dread "shots" as the inevitable accompaniment of office visits, and of making more likely dangerous anaphylactic reactions to the drug.

Phenyloxymethyl penicillin (penicillin V) has been recently introduced as a form which gives higher blood levels than the earlier penicillin G (1) (2) (3). It gives blood levels comparable to injected procaine penicillin (4). Two studies on its use in 74 and 84 patients, respectively, in pediatric practice have been reported (5) (6), with favorable results in both. This study was designed to determine in a larger series of cases, the effectiveness of penicillin V in the acute upper respiratory infections seen in routine pediatric office practice, and judged by the observer to be probably due to the common coccal pathogens.

Clinical Methods

One hundred children seen in the office of the authors between July 2 and Oct. 4, 1957, form the basis of the first part of this study. These children were judged by the examining physician to have an acute upper respiratory infection probably of coccal origin and requiring antibiotic therapy. The more scientific method of getting the results of throat cultures, prior to starting therapy, was not deemed practical for a study made entirely on private patients accustomed to immediate treatment.

Each patient had pertinent history recorded, cyte count and differential were done. Where the leukocyte count was over 12,000, it was re- and a complete physical examination. A leukopeated in 48-72 hours. Where the differential showed over 70 per cent polymorphonuclear cells, this was repeated. The throat was cultured on the initial visit, and if hemolytic streptococci or hemolytic staphylococci or pneumococci were isolated, the throat was recultured in 48-72 hours to see if the organisms were still present. Sensitivities to penicillin, erythromycin, and several other antibiotics were determined in 64 cases.

Penicillin V as a suspension containing either 125 mgm. or 250 mgm. per 5 cc., and erythromycin in either suspension or tablets, were used for treatment.* It was planned to give every third child erythromycin as a control drug. The penicillin V dosage for children less than 50 pounds, was 125 mgm. every six hours, day and night for 48 hours, then 125 mgm. morning and night for four days. For children over 50 pounds, the dose was doubled. Erythromycin was given in dosage of approximately 12 mgm. per pound body weight per day, in four divided doses, for two days; then half the dosage for four days. Six children had an initial injection of 1 million units of procaine penicillin because of intractable vomiting, or moderate toxicity with persistent refusal of oral medication. In each of these, oral therapy was commenced after a few hours. Eight patients, apparently clinically resistant to one drug, were shifted to the other at the end of 72 hours.

Follow-up examination was made in 48-96 hours. In addition, a telephone followup was made by a nurse at the conclusion of treatment to determine if the child seemed completely well; if there had been any reaction to the drug; and if all the drug had been taken.

The second part of the study consisted of 145 patients seen between Nov. 7, 1957 and Dec. 26,

(1) — From the Department of Pediatrics, The Tucson Clinic.
(2) — This study was aided by a grant from the Eli Lilly Co. of Indianapolis, Ind.

*Phenyloxymethyl penicillin was supplied by the Eli Lilly Company as V-cillin (R) suspension. Erythromycin was supplied by the same company as Ilotycin (R) Pediatric Suspension or tablets.

1957. In the interim between the first and second studies, the community had suffered an epidemic of influenza, presumably of the Asian type. In the second part of the study, no routine laboratory studies were made, and the follow-up was made by phone at the end of the treatment period unless the condition of the child required a second visit. Administration of the drug was according to the same schedule although a somewhat greater proportion (43 per cent) received the control drug, erythromycin. The age of the children studied and duration of their illness are shown in Table I. The older age groups predominate. Slightly more than 50 per cent in each group had illnesses said to be of three days duration or less.

TABLE I

AGE OF PATIENTS AND DURATION OF ILLNESS

Age	*First 100 cases*	*Second 145 cases*
Less than two years	12	31
Two through five years	56	55
Six years and above	32	59
Duration		
Less than three days	47	77
Three days or more	43	61
Unrecorded	10	15

Symptoms and signs for the 245 children forming the entire study are given in Table II. Due to the pressure of a busy office practice, it is probable that some symptoms, which seemed minor to the parent or physician, may have been omitted. There was little difference between the first and second parts of the study, save for a higher incidence of otitis media (39 per cent against 29 per cent) in the summer, and an increase in bronchitis (25 per cent against 10 per cent) in the winter.

TABLE II

SYMPTOMS AND SIGNS

	First 100 cases	*Second 145 cases*
	per cent	*per cent*
Pharyngitis (incl. tonsillitis)	88	83
Cough	36	57
Otitis Media	39	29
Bronchitis	10	25
Cervical adenitis	9	8

The maximum known figure for fever is given in Table III. As might be expected in cases brought to the office, the majority had moderate elevation of temperature. As many of the children had aspirin prior to the office visit, the height of the fever is probably an unreliable guide to the severity of the disease.

TABLE III

FEVER

	First 100 cases	*Second 145 cases*
None	6	21
Less than 101	13	21
101 to 103	53	66
Over 103	27	10
No record	1	29

The initial leukocyte count was over 12,000 in 50 per cent of the cases where it was determined, while the polymorphonuclear percentage was over 70 per cent in only 30 per cent. (Table IV) In the 28 cases where the leukocyte count was repeated, it was above 12,000 in only eight (28 per cent), whereas only one of the 25 repeat differentials showed a percentage over 70 per cent.

TABLE IV

INITIAL BLOOD COUNT

90 Charts —	WBC 12,000 or Less	45
	WBC 12,000 or More	45
89 Charts —	Polys 70 per cent or Less	62
	Polys 71 per cent or More	27

REPEAT BLOOD COUNT

28 Charts —	WBC 12,000 or Less	20
	WBC 12,000 or More	8
25 Charts —	Polys 70 per cent or Less	24
	Polys 71 per cent or More	1

Beta hemolytic streptococci were isolated in 33 per cent of the first series of cases, hemolytic staphylococcus aureus in 34 per cent, pneumococci in 30 per cent. (Table V). Other pathogens were found in smaller numbers, no pathogens in eight. Several cultures showed more than one pathogen. Repeat cultures done on 50 cases, who had had B hemolytic streptococcus, staphylococcus aureus, or pneumococcus, showed that B hemolytic streptococcus persisted in eight out of 21 who had had it on the initial culture and emerged in six others. Staphylococci persisted in nine of 34 and pneumococci in two out of 30.

TABLE V
BACTERIOLOGICAL FINDINGS IN 100 CASES

	Initial Culture in 100 cases	*Repeat Culture in 50 cases*	*Persistent*	*Newly Emerged*
B. Hem. Strep.	33	14	8	6
Hem. Staph. Aureus	34	9	3	5
Pneumococcus	30	2		
Non Hem. Strep.	11	2		
M. Catarrhalis	10	1		
Pseudomonas	4	5		
Gm. Neg. Bac. (unidentified)	3	0		

TABLE VI

B. Pyocyaneus	1	0
Hemophilus Infl.	1	0
No Pathogens	8	23

Sensitivity studies done on cultures showing B hemolytic streptococcus, staphylococcus aureus, and pneumococcus are condensed in Table VI. In three cases the organisms were resistant to both penicillin and erythromycin. There were 35 organisms sensitive to penicillin and 26 resistant to it, 54 sensitive to erythromycin, five resistant.

TABLE VI
SENSITIVITIES

Penicillin sensitive	35
Erythromycin sensitive	54
Resistant to both drugs	3
Penicillin resistant	26
Erythromycin resistant	5
No sensitivities recorded	34

Results

Clinical results as judged by the parent at the end of six days or more of treatment are summarized in Table VII. In the first 100 cases a return visit was made at 48-72 hrs. for physician evaluation, but this interval was too brief for disappearance of other than fever and malaise. Where these persisted or the child had obviously worsened, the drug was deemed unsatisfactory, and the study terminated by a shift to a different antibiotic. Where a new diagnosis such as measles or hepatitis became evident, the case was not included in the study. Where two drugs were used in succession due to failure of the first, they were tabulated separately. The results show that each drug achieved about 75 per cent success in both parts of the study, with penicillin enjoying a slight but not statistically significant advantage in the first 100 cases.

TABLE VII
PENICILLIN V

	Satisfactory	*Unsatisfactory*
First 100 cases	57	13
Second 145 cases	63	19
TOTAL	120	32

ERYTHROMYCIN

	Satisfactory	*Unsatisfactory*
First 100 cases	22	8
Second 145 cases	48	15
TOTAL	70	23

Tolerance for both penicillin V and erythromycin was in general excellent. A few children vomited at the onset of treatment, and a few did not like the flavor, but only in those noted below was this a problem. Undesirable side reactions to the drug are shown in Table VIII. Less than 6 per cent of the patients had to be taken off the drug, and in no case was the reaction either lasting or serious.

TABLE VIII
DRUG REACTIONS IN 245 PATIENTS

	Penicillin V	*Erythromycin*
Total patients on drug	152	93
Total with reactions	11	6
Drug stopped	9	4
Persistent vomiting	2	3
Rash	7	3
Diarrhea	5	1

Unsatisfactory results were analyzed. Reactions, as seen in Table VIII, accounted for a few, but in the majority, no reason could be assigned. In a few instances, coexisting conditions such as severe asthma or nephrosis may have contributed to the poor result. In the first 100 cases, failures were analyzed as to complaints, duration of disease, degree of fever, physical findings, height of leucocyte count, polymorphonuclear percent-

ages, original throat culture, and drug used. In none of these categories was there significant variation from the total figures except that hemolytic staphylococcus aureus appeared in 34 of the original 100 cultures, and in only three of 20 classified as failures.

Discussion

From this study it would appear that penicillin V, in the doses used, gave satisfactory clinical results in about 75 per cent of children with acute upper respiratory infections of presumably bacterial origin.

Results achieved with a control antibiotic, erythromycin, were approximately the same. It is probable that some of the infections were of viral origin, but the throat cultures in the first 100 cases showed presence of a significant number of the common bacterial pathogens.

In some ways the study was imperfect. Unquestionably repeat throat cultures were taken too soon to show whether the dose of drug given was enough to eradicate the pathogenic organisms. It is the impression of the authors that a larger and more prolonged dosage schedule might have increased the percentage of satisfactory results, and recent studies on the eradication of hemolytic streptococci would bear this out. It would have been scientifically better to have used a series of controls with no antibiotic, but this did not seem justified in our office practice, due to the danger of complications.

Penicillin V and also erythromycin, as used in this study, was a satisfactory preparation to use for young children, well tolerated and with low toxicity.

Summary and Conclusions

1 — Penicillin V was used for the treatment of upper respiratory infections, of presumably bacterial origin, in 152 children seen in routine office practice during the summer and fall of 1957. Clinically satisfactory results were obtained in 120. Erythromycin was used as a control drug in 93 with approximately equal results.

2 — Penicillin V as used in this study was free from any toxic effects in 93 per cent of the cases, and there were no major side reactions. The drug was well tolerated.

3 — Penicillin V appears to be a satisfactory antibiotic agent for the majority of bacterial respiratory infections. Greater dosage might well yield a higher percentage of good results.

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116 N. Tucson Blvd., Tucson, Ariz.

BOOK REVIEWS

PREGNANCY, BIRTH, AND ABORTION
by **Paul H. Gebhard, Wardell B. Pomeroy, Clyde Martin, and Cornelia Christenson.** 282 pages. Illustrated. (1958) Harper & Hoeber. $6.

The third of the famous "Kinsey" books is prepared by the Institute for Sex Research. Based on detailed interviews with approximately 7,000 women, the study concerns the number who became pregnant before marriage, during marriage, or while separated, divorced, or widowed, and the ways in which those pregnancies ended, whether in live birth, spontaneous abortion, or induced abortion. In addition, there is a study of a sample of women prisoners, as well as a chapter on induced abortions: methods, prices, abortionists, and the physical, social, and psychological consequences of operations.

Stacey's Medical Books, San Francisco, Calif.

THE TREATMENT OF FRACTURES, Vol. 3
by **Lorenz Boehler,** M.D. 5th ed. 808 pages. Illustrated. (1958) Grune & Stratton. 3 vol. set $63.

Dealing with injuries from the knees down, this completes the three volumes of an encyclopedic and authoritative work on fractures, written by the most eminent of traumatic surgeons. An interesting appendix considers the traumatic surgeon in relation to injuries, hospitals, general surgeons, problems of insurance, statistics, and education in traumatology. It is difficult to assess a book by Boehler. The overwhelming mass of experience is so carefully organized it would almost be lese majeste to question a minor point. The three volumes constitute a modern classic of surgery.

Stacey's Medical Books, San Francisco, Calif.

THYROID AND THYROID CANCER*

Robert S. Pollack, M.D.

San Francisco, Calif.

IT IS INDEED, a great pleasure to be here. Some of you may remember that I was here four years ago and spoke on the adrenal glands. This time I am speaking on the thyroid and the breast. I'm afraid that we are going to run out of glands pretty soon, and you'll have to stop your meetings!

In contrast to the first speaker, whose subject was hyperthyroidism, my subject is thyroid tumors. There is a distinction between the two. The physician is faced, diagnostically and therapeutically, with completely different considerations regarding a tumor in the thyroid as compared to thyrotoxicosis.

Much may be said about thyroid nodules. It has been stated that if every nodule in the thyroid gland were removed, the problem of thyroid cancer would be eradicated. Although I can't agree completely with this, there is some truth in it. If we study the country as a whole, the incidence of cancer in thyroid nodules will vary greatly. At Stanford University Hospital, and the University of California Hospital, in San Francisco, there is not a great deal of thyroid disease seen, far less than is seen in the Middle West. In the California hospitals, about 5 per cent of all nodules removed in the operating room are malignant. At the University of California Hospital, a recent pathologic study of thyroid disease stimulated much interest in thyroid cancer. All of a sudden, the incidence of thyroid cancer in the operating room increased to 18 per cent. Cole and Crile in the Midwest have reported similar incidences, but along the Eastern seaboard, the incidence is closer to 4 to 8 per cent.

These figures emphasize the importance of defining exactly what we mean when we talk about a nodule. Ten years ago, each nodule was of more concern because our knowledge of nodules and our diagnostic criteria were not as refined. Today, each nodule is evaluated first on the basis of a thorough history and physical examination. Is the nodule a neoplasm, or is it merely one phase of the involutional aspect of the thyroid gland itself? Next, patients with thyroid nodules are given radioactive iodine for uptake studies. With a discreet nodule, between two or three centimeters in size, whose uptake of radioiodine is large, it would be felt that a true neoplasm is probably not present, although some adenomas will take up radioiodine, and a course of treatment with thyroid extract outlined. These are referred to as "hot" nodules, probably involutional in type, and not neoplastic. If after three months of thyroid medication the nodule persisted, one would consider surgical removal. When, however, the nodule is "cold," there being no uptake of radioiodine, prompt surgical removal is best treatment. Even here the vast majority of cold nodules are not malignant, but they are neoplastic.

When one says that there is an incidence of 20 per cent or 8 per cent malignant disease in thyroid nodules, it is really not saying very much. All of these figures represent operating room experience. I'm sure that there are many more patients in good health with thyroids containing solitary or multiple nodules who never come to surgery, and therefore, the true incidence of thyroid cancer in nodules is very small, indeed. On the other hand, this should not lead us into a false sense of security. Each patient with a thyroid nodule should be individually evaluated.

Age-Sex Incidence

A recent review of thyroid cancer patients revealed the following clinical picture. Age did not seem too important a factor, it ranged from six to 86 years of age. Thyroid cancer in children has become far more prevalent over the past five years. Its incidence is often associated with a past history of irradiation to the lower portion of the neck. This was so in the majority of cases of thyroid cancer I've seen in children during the last five years. In each of these instances, the child had been subjected to some form of irradiation, but the exact dosage could not be

*Presented before the Arizona Medical Association, Chandler, May 1958.

obtained. It was given, presumably, for thymic enlargement. Then, some 10 or 12 years later, we find, indeed, cancer of the thyroid in the child. This would appear to emphasize the carcinogenic factor of irradiation. The implication, however, is only an indirect one and cannot be proved with certainty. Of more importance is the fact that a nodule in the thyroid gland of a child should be taken with especial seriousness and the possibility of cancer entertained.

There is a higher incidence of thyroid cancer in females, but because the solitary nodule in a male is less frequently seen, its chance of being malignant is proportionately higher than in the female. Contrary to other published reports and opinions, in this series there was a rather high incidence of toxicity in those patients who had thyroid cancer, seven out of 63 patients.

Half of the patients had metastases when first seen. In 20 of the 30 with metastases there was involvement of the cervical lymph nodes. In 10 of the 30, metastases were not only to the lymph nodes, but also to the skeleton and lungs. This is a high incidence of metastasis, and I would think is due to the selection of cases rather than a true picture of the disease. A more recent review of patients with thyroid cancer over the past year reveals a far lower percentage with metastasis. In other words, more restricted, perhaps earlier cases of thyroid cancer are being seen today as compared with many years ago.

About 25 per cent of the patients in this series had recurrent tumors, and were seen following treatment to the thyroid at some previous date. Of the 63 cancers, 16 occurred in patients with a nodule as the presenting sign. Of these 16, 12 were solitary nodules and four were multiple. This fits in with a growing feeling that multiplicity of nodules in the gland is not a sure sign against the presence of cancer, although it is true that the solitary nodule, especially in the male, is the more dangerous clinically.

Here again, it is important to define exactly what we are talking about. If a gland has multiple nodules, diffusely so without spaces or delineations between each nodule, it is most likely that we are dealing with involutional change only. But when a gland contains several independent nodules in one, or both lobes, the probability of neoplastic disease is far greater. Radioiodine studies in these instances are difficult to obtain with accuracy because each nodule tends to obscure the scanning technique, and therefore, surgical removal is deemed wisest. The very small, tiny nodule, is also difficult to accurately scan, and in all probability these, too, should be removed.

Time and Types

It was possible to make a clinical diagnosis in half of the patients, due, probably, to the material studied as so many of them had cervical node and distant metastases with a thyroid tumor. The duration of the tumors in the group varied. In over half, the tumor was present for less than 24 months. This is noteworthy because it has been said that thyroid cancer is a slow growing disease, that one has time to act on it, that one can wait, and really, there isn't much hurry about doing anything with this little nodule. It has been stated also that this form of cancer doesn't metastasize quickly. The figures don't support these contentions because half of the patients had lesions for less than one year. These were clinically evident and showed increased size, and all patients gave a high incidence of cervical node and more disseminated metastases.

Histologically, there are many types of thyroid cancer. They may be divided into three broad clinical groups, potentially malignant, moderately malignant, and highly malignant. Patients in the first two groups can be treated surgically with a fair and reasonable amount of success. In the third group, surgery appears to be an almost hopeless gesture because of the tremendously high incidence of early and widespread dissemination. In fact, in this particular group most of the patients in the above series already had disseminated metastasis and were inoperable.

The so-called malignant adenomas, or poorly defined "almost" cancers, are listed in the potentially malignant group. Some of these adenomas show blood vessel invasion despite a benign histological appearance. Others show papillary projections and formations but appear benign histologically. We have learned, however, that, indeed, these, too, are malignant. They are low grade histologically, but they are none the less malignant tumors. In the second group, the

moderately malignant, are tumors whose histologic nature is beyond question. The commonly seen papillary adenocarcinoma falls into this group. I have placed the Hurthle cell carcinoma in this group also. This may be subject to debate by some histopathologists as they may feel it belongs in the less malignant group, but the Hurthle cell carcinoma does not appear to be different from other adenocarcinomas of the thyroid. The remaining types of cancers in this group are the follicular and alveolar forms. In the highly malignant group are listed "giant cell" carcinomas, lymphosarcomas, and sarcomas. The solid adenocarcinoma, also is listed in this group. A solid tumor of this type becomes widespread rapidly, and cure rate is very low.

The following is a frequently seen clinical example of thyroid cancer: A young woman is presented to you with the chief finding of a solitary lump in the lateral portion of the neck. The lump may have been present for six or more months and shown slow, but progressive increase in size during that period. No other lumps are felt in the neck and the thyroid is normal. On removal of the lump, it will be found to be composed entirely of thyroid tissue. There is little doubt that such a lesion in this region of the neck is a lymph node metastasis from a small cancer in the homolateral lobe of the thyroid, and not, as has been thought, an "aberrant thyroid" cancer.

Methodologies

In treating this patient, it is the feeling of many that because the primary tumor is in one lobe of the thyroid, and has metastasized to the ipsilateral cervical lymph nodes, a thyroid lobectomy, and ipsilateral neck dissection, including all the lymph nodes on that side, the sternocleidomastoid muscle and internal jugular vein, be performed. There are others, however, of equal confidence and equally astute who feel removal of just the involved lobe of the thyroid and the enlarged lymph node is the procedure of choice. There are still others of equal authority who feel that removal of all the thyroid, total thyroidectomy, and some of the lymph nodes of the neck on both sides, sort of a berry picking procedure if you will, is the preferred treatment. And there are still others who feel that the thyroid lobe and the lateral neck nodule should be removed, and then that side of the neck treated with irradiation.

There are figures and statistics reporting the results of all these methodologies. It would seem logical, however, and there are also figures to base this on, too, that when a patient has a metastasis in the cervical lymph nodes of the neck, and the homolateral thyroid lobe is found to be the primary site, the cancer is spreading in a lateral direction, and therefore, to remove all cancer bearing tissue, it should be done by radical neck dissection and hemithyroidectomy. This is the most common method of treating unilateral thyroid cancer which has involved the ipsilateral cervical lymph nodes.

The treatment of thyroid cancer may be simplified if we review the embryological development of the thyroid. Most of the thyroid gland in man, with the exception possibly of the pyramidal lobe, develops as a bilateral organ from anlage which moves from the sides of the neck, where are placed the embryonic branchial clefts and pouches, to fuse anteriorly in the midline. Small implants of normal thyroid tissue found in the lateral muscles of the neck, especially the sternocleidomastoid, give evidence of this migration. With this movement the thyroid tissue brings with it it's own blood supply and lymphatics from the lateral regions of the neck. Therefore, one might fairly assume that when cancer on one side of the thyroid spreads, it will most frequently spread to the same side of the neck.

The exact incidence of crossed metastasis within the thyroid gland is debatable, as is the theory that the thyroid gland is a large venous and lymphatic lake in which cancer cells are trapped and disseminated intraglandularly. The incidence of a cancer on one side of the thyroid gland, metastasizing to the contralateral lobe in most studies appears to be under 5 per cent, although figures up to 20 per cent are reported. Until more definite evidence is forthcoming, it is still recommended, in treating a unilateral thyroid cancer, that the involved lobe up to the midline of the neck be removed, and no more. If there are lymph node metastases on that side of the neck, or if there is invasion of the overlying capusule and musculature a neck dissection on that side is advised, preferrably a radical one. If, however, there is only a solitary, unilateral lobe cancer, the treatment of choice is uni-

lateral total lobectomy.

Survival Rates

It has been said that very few people die of thyroid cancer. It also has been said that this is a relatively benign disease, and that the method of treatment doesn't seem to play too much part in the cure rate. To verify this, the survival rate of patients in the above mentioned series was carefully examined.

About 70 per cent of patients with thyroid cancer have a mixed, papillary type of adenocarcinoma. The remaining have so-called malignant adenomas, a few have pure alveolar and pure follicular forms, and the rest have highly malignant types. When patients with the papillary tumors were followed, it was found that over half were alive and well without evidence of disease at the fifth year. At this time, the papillary group had the highest survival rate of all the histologic types, exclusive of the malignant adenomas. In other words, this group of patients still maintained the highest number of five-year cures, and this group constitutes the majority of thyroid cancers. But at 10 years see what's happened! The papillary carcinomas show a survival figure no better than the unclassified, or mixed type of cancers or the more highly malignant ones.

This rather interesting fact is emphasized by the *overall* figure of 60 patients followed for 10 years. There was a cure rate of only 20 to 30 per cent (determinate and indeterminate). We must agree that a 20 to 30 per cent 10-year survival figure is not a very dramatic or encouraging figure for the treatment of thyroid cancer. We must also conclude that if this is a surgical effort, it isn't a very good effort. Therefore, I leave you with the statement that I made originally. Would it not be best, when in doubt, to remove all nodules of the thyroid gland, because if you project that patient with the nodule 10 years ahead, this is about what you may have. The situation again may be referred to the surgeon who said that we would never have to worry about thyroid cancer if all thyroid nodules were removed.

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BOOK REVIEWS

LABORATORY MEDICINE – HEMATOLOGY
by John B. Miale, M.D. 735 pages. Illustrated. (1958) Mosby. $13.75.

Hematology is the first of a triad of volumes on laboratory medicine. The objective is to correlate clinical and laboratory data, interpreting them in terms of diagnosis and treatment. Detailed accounts of many of the author's practical laboratory methods are found in the appendix. Fine illustrations, charts, and extensive bibliographies support the text.

Stacey's Medical Books, San Francisco, Calif.

HUMAN PARTURITION: Normal and Abnormal Labor
by Norman F. Miller, M.D., T. N. Evans, M.D., and R. L. Haas, M.D. 248 pages. Illustrated. (1958) Williams & Wilkins. $7.50.

Three members of the Department of Obstetrics, University of Michigan, make available a concise delineation of basic factors and mechanisms involved in human parturition. Commencing with the particulate components, the reader is carried on to their integration in the form of normal mechanisms of labor. This is followed by description and visual portrayal of abnormal parturition and discussion of complications incident thereto.

Stacey's Medical Books, San Francisco, Calif.

DISEASES OF THE ESOPHAGUS
by J. Terracol, M.D., and Richard H. Sweet, M.D. 682 pages. Illustrated. (1958) Saunders. $20.

Dr. Sweet, Associate Clinical Professor of Surgery, Harvard, rewrites the famous "Les Maladies de L'Esophage" of Dr. Terracol, Professor of the Faculty of Medicine of Montpellier, France. He not only translated and rewrote it, he made contributions of his own so that it represents a collaborative effort. It is an excellent book and the definite work on the subject.

Stacey's Medical Books, San Francisco, Calif.

THE ESSENCE OF SURGERY
by C. Stuart Welch, M.D. and Samuel R. Powers Jr., M.D. 230 pages. Illustrated. (1958) Saunders. $7.

The history of surgery and a definition of the discipline open this introductory text. Fundamental principles in the healing of wounds, the physiology of fluid and electrolyte infection, and pre- and postoperative care are discussed. Under operative surgery the principles of basic surgical techniques and of extirpative, reconstructive, and endocrine gland surgery are given. There is a section on anesthesia.

Stacey's Medical Books, San Francisco, Calif.

USE OF SYNTHETIC OXYTOCIN IN THE MANAGEMENT OF THE THIRD STAGE OF LABOR

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MORE WOMEN die of accidents in the third stage of labor than in the first two stages combined, hence the importance of proper management of this stage is readly apparent(1)(2)(6)(7). In this respect, two important and interrelated aspects are the duration and blood loss of the third stage. Accordingly, the measures directed against postpartum hemorrhage are concerned with shortening the third stage(9).

DuVigneaud et al.(17), in 1953, revealed the synthesis of the polypeptide hormone which was shown to be clinically and biologically identical with the natural oxytocin. Boissonnas et al.(18), in 1955, described a new synthesis of oxytocin (Syntocinon). Boesch and Kaesner (19)(20), Bainbridge et al.(21), Francis and Francis(22), Morari(23), Chosson et al.(24)(25), Mayes and Sherman(26), Nixon and Smyth(27), Krone et al.(28), Friedman(29), employed Syntocinon for induction, uterine intertia, and in the postpartum with gratifying results. Caldeyro-Barcia and Poseiro(30) reported that Syntocinon causes an increase in the intensity and the frequency of uterine contractions without significantly raising the tonus.

This investigation was undertaken to evaluate the effect of using a synthetic oxytocin** intravenously at the time the head of the baby is delivered. It was felt there would be a more rapid response with a shortened third stage and less blood loss by using the intravenous route of administration(4)(5).

Materials and Methods

An unselected series of 200 private and clinic patients was used in this study. This number represented 5.8 per cent of a total of 3,459 deliveries occurring from September 1957 through April 1958. The group consisted of 129 multiparas and 71 primiparas with an age range of 14 to 39 years. All were at or near term. One hundred and two patients were delivered spontaneously, 86 by elective forceps, eight by indicated mid-forceps, and four by breech extraction. One hundred and sixty-two patients were given nitrous oxide-oxygen, and trilene inhalation anesthesia (130, light depth), supplemented by pudendal block; 12 had saddle blocks, 13 had local or pudendal block alone, and 13 had no anesthesia (see Table I).

Just prior to the delivery of the head, 10 IU (1 cc) of Syntocinon (synthetic oxytocin) was injected intravenously. Pulse and blood pressure readings were taken on admission, during labor, one minute prior to the injection, one minute after delivery, and at three-minute intervals thereafter for a minimum of 15 minutes and at 15-minute intervals until stable, or for one hour. Blood loss was estimated grossly before and after the placenta was delivered. The time lapse between injection and delivery of the baby, and between injection and delivery of the placenta was carefully recorded. Other factors evaluated included character of uterine contraction following the injection of Syntocinon, need for additional oxytocin during the hospital stay, incidence of manual removal of trapped placentas, and incidence of postpartum atony of the uterus.

In 12 cases, 1 cc of Syntocinon was given intravenously after delivery of the baby and in none of these patients was the placenta trapped, nor did the third stage last longer than the average time for the series.

Manual expression of the placenta was used infrequently. In patients with the placenta only partially expulsed into the vagina, or lying loosely in the cervical os, the method advocated by Brandt-Andrews was used for manual expression.

Not included in the results of this study were 26 cases of induction of labor, and 12 cases of stimulation of labor, administered by continuous intravenous drip of synthetic oxytocin. The rate of dilution was standardized at one international unit per 100 cc of 5 per cent glucose in

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**Syntocinon, furnished by Mr. Harry Althouse, Sandoz Pharmaceuticals.

water. Our results corroborated those found by Bishop(8).

Results

In this series, the average duration of the third stage was four minutes. The average estimated blood loss before and after delivery of the placenta was 15 cc and 30 cc respectively. Table II shows the estimated blood loss in relation to duration of the third stage. The third stage lasted four minutes or less in 142 patients. Twenty-four patients had a third stage of six-10 minutes and 17 patients had a third stage of 10-20 minutes. No third stage lasted longer than 20 minutes as elective manual removal of the placenta was done if it was not delivered by this time. Many of these cases had an earlier separation of the placenta proved digitally, but had not expelled it freely into the vagina for removal. These were expressed following elective repair of episiotomies, to note whether or not there was greater blood loss. The expected increase in blood loss was not striking, so long as the uterus remained well contracted. The average blood loss for each period of the third stage substantiated the dictum "the shorter the third stage, the less blood lost."

There were four instances in which the uterus did not contract well following the intravenous oxytocin. In each instance the blood loss was in excess of 100 cc. One of these patients had a precipitate labor, one a brow presentation, and one had secondary uterine inertia.

No blood pressure changes greater than 30 systolic and 15 diastolic were noted, and these were present in only 14 cases. These changes, with careful analysis in regard to the presence of uterine contractions and voluntary pushing, were not considered significant.

Three placentas were removed manually. Only one was actually trapped by the internal os. Two manual removals were performed on cornual implantations with failure to separate.

Of the 200 patients, only two required additional oxytocics during the puerperium; both had postpartum hemorrhage of over 500 cc. One

TABLE I

No. Cases	*Multip.*	*Primip.*	*Age Range*	*Anesthesia*				*Nature of Delivery*			
200	129	71	14-39	N_2O and Trilene with Pud. 162	Saddle Block 12	Local or Pud. 13	No Anesth. 13	Spont. 102	Elect. 86	Mid-Forceps 8	Breech 4

TABLE II

Estimated blood loss cc.	*Third Stage Duration in Minutes* 1	2	3	4	5	6-10	10-20	*Per cent*
0- 10	11	8	3	3	3	3	1	16.0
10- 20	7	7	3	4	1	1	0	11.5
20- 50	14	15	19	7	4	9	6	37.0
50- 60	8	3	2	0	3	2	3	10.5
60- 75	2	6	4	3	2	2	2	10.5
75-100	5	2	2	1	3	3	0	8.0
100-150	1	1	1	0	0	2	2	3.5
150-200	0	0	0	0	1	1	2	2.0
200-250	0	0	0	0	0	1	1	1.0
Total no. of patients	48	42	34	18	17	24	17	100
Average blood loss, cc	40	45	48	50	55	60	62	

was a 19-year-old primigravida (redhead) with an elective low forceps delivery, three-minute third stage, and an estimated blood loss after delivery of the placenta of 50 cc. She was discharged on the third postpartum day and readmitted on the ninth postpartum day with delayed postpartum hemorrhage, due to subinvolution and deciduitis. The other patient was a 30-year-old multigravida who was admitted for induction of labor because of pre-eclampsia, moderately severe. Three hours after surgical induction, the patient had a spontaneous delivery, three-minute third stage, and an estimated blood loss of 100 cc. Three hours postpartum the patient hemorrhaged from uterine atony. The patient responded readily to intravenous Syntocinon infusion, but required a 1,000 cc blood transfusion.

Discussion

Clinical proof that the placenta separates on an average of five minutes after delivery, has been demonstrated by Calkins et al.(1)(14). Brandt and Warnekros(15) have demonstrated and confirmed the findings of separation usually after three minutes by means of roentgenography Along with Freeland(13), they have shown that some separation occurs even prior to the third stage of labor. Undoubtedly, this explains some cases of fetal distress before the expulsion of the child. Even in the light of this knowledge, we know the average duration of the third stage in women who are unassisted at that time, is one hour or more. Ahfeld(12) found among 500 women only 20 per cent were able to expel the placenta within one hour.

Modern methods of analgesia, anesthesia and amnesia tend to inhibit adequate uterine contraction and retraction in the third stage. The uterus is flaccid and will not readily respond to stimulation(15)(16), and consequently, the third stage is of longer duration. Many measures have been advocated to shorten the third stage and reduce blood loss, i.e. slow delivery of the baby, expression of the placenta, manual removal of the placenta, and adequate repair of lacerations and episiotomies. Along with these, an increasingly important adjunct is the use of an oxytocic such as Syntocinon.

We endeavor to evaluate whether or not the injection of synthetic oxytocin intravenously, just prior to the delivery of the head, is preferable to the practice of massaging, squeezing and traumatizing the uterus and its ligaments to facilitate and hasten placental separation. The clinical efficacy of this method for managing the third stage of labor was demonstrated by a shortened third stage and resultant minimal blood loss. In addition to being an efficient method, it is safe. No vasopressor effects or idiosyncracies were encountered in this study.

Obtained almost invariably by this method was the important effect of minimizing the bearing down efforts of the mother. This results in a well controlled, slow delivery of the infant, and in most instances the placenta quickly followed the infant.

Other distinct advantages became manifest in this study. Only two patients required additional oxytocics during the puerperium. These same two cases provided the only two instances of postpartum hemorrhage, an incidence of 1 per cent. Only one of these cases had hemorrhaged from uterine atony. This figure is considerably lower than the 10 per cent incidence of postpartum hemorrhage reported by Eastman(11) and others.

The fear of trapping the placenta by this method is more a delusion than a reality. One case demonstrated actual trapping of the placenta behind the cervix, requiring manual removal. Two other manual removals were performed because of cornual implantations of the placenta with failure to separate. In 3,259 deliveries occurring during the same period of this study, there were 69 analogous cases where manual removal was performed. The 1.5 per cent incidence of this series compared favorably with the 2 per cent incidence found in the larger number of deliveries on this service.

Summary and Conclusions

Although this series is not very large, the results warrent the following conclusions:

(1) Giving 1 cc of Syntocinon (10 IU) just prior to the delivery of the head, aids in spontaneous expulsion of the fetus with minimal bearing down efforts by the mother, due to contraction of the uterus at an optimal time.

(2) There is less blood loss during the third stage and 16 per cent of the patients in this series had virtually no blood loss other than that

associated with episiotomy bleeding.

(3) The duration of the third stage is shorter, thereby lessening the risk of hemorrhage.

(4) There is decreased tendency to uterine atony and consequently less tendency to postpartum hemorrhage.

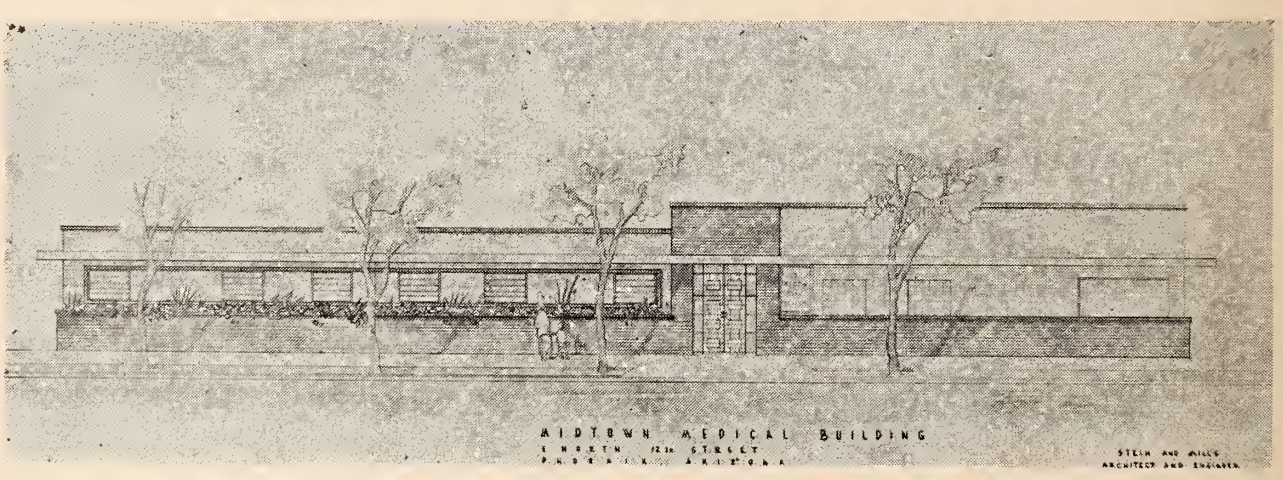
(5) There is no increased incidence of manual removal of the placenta.

(6) No untoward BP changes were found associated with the use of synthetic oxytocin intravenously.

(7) No other undesirable side effects were noted in this study.

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The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have heen read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notifed within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
8. Illustrations — Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.
9. Reprints — Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

EDITORIAL

IN THE SECTION devoted to the Women's Auxiliary to the Arizona Medical Association, is an excellent article written by Mrs. Willa R. Kennedy. It presents the problem that we have repeatedly ignored, that of civil defense in this state. It is frightening to think that we have done so little work that on a national rating, we are listed second from the bottom. All of us must be aware that none of the states have taken adequate steps to meet this problem, and yet, we are among the very worst in the nation. This, in spite of the fact that we are isolated, and contain ideal military targets. When will we, as physicians of the state, take adequate steps to protect our people not only from the medical aspects of this problem, but so stimulate them, that adequate ancillary facilities will be established to protect them? Our lethargy is remarkable and appalling. Steps must be taken, and taken now. Day by day we seem to be brought closer to the possibility of war, in fact, it could occur overnight in view of repeated situations concerning Lebanon, Jordan, Formosa and the off-shore islands.

What steps have been taken by the state medical organization? None! What by Maricopa County? Some, but very limited. What by the Pima County Medical Society? Very poor, outmoded and inadequate!

It is time now to buy this insurance policy, to make this preparation, to have those plans available, to have dry runs. It is imperative for the survival of our people, our families and ourselves.

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THE WORLD MEDICAL ASSOCIATION

WMA IS CONTINUOUSLY sounding the alarm against those who would oppress the doctor. In Cuba, in France, in Malta, in Belgium and elsewhere, the moral force of WMA has been an important factor in rallying the physicians and giving them encouragement and resolve to defend the principles of good medical practice. Again and again, WMA has come to the aid of our besieged colleagues, has helped to publicize their case, and has shown the solidarity of practicing physicians everywhere in fighting for basic medical freedoms.

In its 10-year history, WMA has demonstrated again and again that when medical men unite, they can fight successfully to keep medical practice unfettered. WMA has set up a standard of 12 principles to be observed in any acceptable plan for medical care in any country in which medical care is part of a social security system. And WMA has worked hard to see to it that these principles are not ignored or flouted.

WMA has also drawn up a list of the seven fundamental freedoms in any medical care plan, which can be summarized as follows:

THE FREEDOM:

— of the patient to choose his doctor.
— of the doctor to conduct treatment.
— of the doctor to prescribe.
— of the doctor from supervision by laymen.
— of the doctor to accept or reject a patient, except in emergency.
— of the doctor to choose his place and field of practice.
— of the doctor to publish his scientific findings and his views on political, social, or economic matters.

Many of us in America may think that doctors in other countries feel differently about these basic freedoms that to us are so essential to good medicine. But WMA has revealed that physicians throughout the free world — and probably many behind the iron curtain, too — speak the same language when it comes to the practice of medicine. They are all deeply devoted to the same principles — and all the more so in those countries where some of these freedoms have been lost or compromised.

WMA has established an international code of medical ethics and a modified Hippocratic Oath defining our universal ideals and obligations. WMA is also defending the rights of our profession against recent attempts by certain non-medical organizations to draft a code of international medical law.

WMA has taken the leadership in medical education, by sponsoring the first world conference on medical education in 1953 in London. It will sponsor a second such conference in Chicago next year.

WMA is trying to bring about a freer flow of proved therapeutic agents by urging removal of unwarranted trade restrictions and arbitrary licensing requirements in certain countries. WMA is acting also to aid medical research by promoting national pharmacopoeias and by defending the rights of individuals to name new drugs and agents that they have discovered.

WMA took an active role in organizing relief and providing new opportunities for hundreds of Hungarian physicians who fled the Communist butchery in October 1956. The plight of some of these doctors who barely escaped torture or death at the hands of the Communists serves to highlight the importance of one of WMA's newest projects: to establish a central repository for medical credentials.

This repository will make it possible for doctors everywhere to prove their identity and professional qualifications in the event that their records are destroyed, or if they are forced to flee from their home countries.

WMA is also engaged in gaining universal recognition for a special emblem that will identify and protect *civilian* doctors and medical units in civil defense. This emblem supplements the Red Cross emblem that identifies the medical units of the *military* forces. The new emblem is a result of conferences among the representatives of the international committee of the Red Cross, the international committee on military medicine and pharmacy and the World Medical Association. It is now being considered for recognition by national authorities.

WMA maintains constant liaison on our behalf with more than a score of international organizations that are concerned in one way or another with medical matters. It has abundantly earned its present status as the recognized international spokesman for the practicing physician.

One of WMA's major purposes is to promote world peace. This it is trying to do:

— by promoting international exchanges of

medical students and teachers, clinical teams and lecture tours;
- by exchanging medical books and journals and by supplying medical literature and equipment to hospitals and medical schools in less favored areas;
- by active participation in President Eisenhower's "People to People" program;
- through the medium of the World Medical Journal and other WMA publications which constantly illustrate the fact that medicine is a universal language that is helping to create the foundations for a lasting peace.

To make good American medicine's pledge of continued leadership in WMA, and to enable each of us *individually* to take a direct part in the world affairs of organized medicine, the profession in the United States, and in many other leading WMA member countries, have formed supporting committees. The United States Committee of WMA is the largest of these national supporting committees, now numbering about 5,500 leading American doctors.

You are invited to become a member of the U. S. Committee of WMA.

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Medical Section, National Tuberculosis Association
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NTA FELLOWSHIPS

THE MEDICAL section of the National Tuberculosis Association, the American Trudeau Society, provides a limited number of fellowships to promote the training of clinicians, medical teachers and scientific investigators in the field of tuberculosis and respiratory diseases. Awards are open to citizens of the United States for work within this country.

Candidates holding the degrees of M.D., Ph.D. or Sc. D., are eligible for awards making possible continuation of graduate study in the field of respiratory diseases in an approved hospital or medical center. Such studies may be oriented toward teaching or research. Residency in an approved hospital under such a fellowship will be credited by the American Board of Internal Medicine toward certification in internal medicine and pulmontary diseases.

Predoctoral fellowships are also offered to graduate students who hold a bachelor's degree and are working on a research project for an advanced degree other than an M.D.

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Further particulars concerning fellowships may be obtained upon request from:
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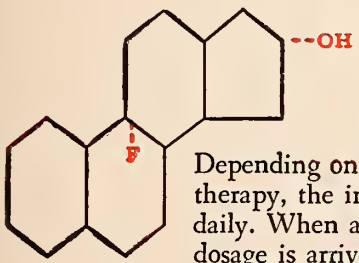
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ALEXANDER MACKENZIE TUTHILL, M.D.

1871 - 1958

A Biographic Sketch

THE NEW YORK AND CALIFORNIA YEARS
1871 - 77 - 98

WHILE ARIZONA may claim Dr. Tuthill as one of her own proud pioneers, he was born at South Lebanon, N. Y., Sept. 22, 1871, and moved with his family to California when he was six years old. Here he spent his early life. He was the son of Hector William and Christina Mackenzie Tuthill. His father was a district manager of the Singer Sewing Machine Company, and his mother was the niece of George R. Mackenzie, who made the first stand for the Singer machine and later was president of that world wide organization.(1) The family moved to Los Angeles in 1877 and here Dr. Tuthill received his elementary and high school education(2). He graduated from the Los Angeles high school in 1890. One of the students, an attractive young lady attending the school at the same time, later became Mrs. Carl Hayden of Arizona.(3)(2) While in high school in 1886, he enlisted as a drummer boy in the Seventh California Infantry. When his parents discovered the enlistment papers, he was suddenly relieved from duty.(4) As we shall see, this was a minor delay in his military career.

In 1892 he entered the medical college that later became associated with the University of Southern California, and graduated in 1895. In 1896 he made his enlistment stick in the California Calvary and established himself as a "wrecker of reviews." This came about when young Corporal Tuthill broke up a review. His horse, all because of a cockleburr in the saddle blanket, galloped through the reviewing party composed of the governor of California and his staff.(4)

Dr. Tuthill always maintained that his interest in military life came early from his father. "My father was one of 11 children and the only boy," he explained. He wanted to enlist during the Civil War, but the influence of 11 women, his mother and 10 of his sisters, was too much. They prevented it. He was imbued with the idea that the proper thing for a young man to do was to serve his country.(5)

His mother, Christina Mackenzie Tuthill, a native of Scotland, and a strict Presbyterian disciplinarian, had some fundamental ideas on how the Sabbath should be spent. Early Sunday morning, he received a scrubbing from head to toe, which any enterprising boy knows is unnecessary, then they were off to Sunday school and church in their best bib and tucker. This was followed by a decorous Sunday dinner and then everyone was to insert his proboscis between the pages of the Bible or some religious tract. Young Tut learned to insert the then equivalent of present day comic books, only to be found out, and to have his attention redirected to more serious literature. No doubt a great deal of this instruction in childhood imbued him with a strict sense of ethical conduct. It did not imbue him, as indeed it has not others, such as Mark Twain, with a high regard for the professional religionists.(1)

In those days he was an ardent sportsman, he played football in high school and in college. They bought their own uniforms. It is just possible this gave athletics a perspective unknown in a football coliseum of the present!

After graduating from medical school, he served some time as an interne at the Los Angeles County Hospital, and then was assistant physician in the San Bernardino County Hospital. He also began private practice in Los Angeles in 1896.(7)

He related in later years how his mother took great pride in having him attend piano lessons for several years under an old Professor Stam, a stern note timer of German origin. The professor used to rap Tut's knuckles almost off about every lesson because Tut didn't at that time see much future in practicing music. Later, after he had finished medical school and was an assistant to a Dr. Buehl, the office had a call from this Professor Stam's house, his wife was ill. Tut took the call and when Professor Stam let him in, he bellowed, "My God, Allie Tuthill, who would have thought you would have ever amounted to a damn!"(2) As we shall see as we progress through his fabulous career, he not only gave his quota of "damns," but he amounted to several more.

In 1896, Dr. Tuthill married Miss Mae E. Heimann, a native of California and a daughter of Richard and Pauline Rooch Heimann, the former of whom was born in Vienna, Austria, and

the latter in California. More about this lovely lady later, but suffice it to state that to them were born two children: Dorothy, born Jan. 26, 1898; Christina, whose birth occurred Jan. 7, 1903.(7)

THE MORENCI DAYS
1898 - 1916

In 1898 he accepted a position with the Arizona Copper Company and the Detroit Copper Company at Morenci. This closed the California days. In 1903, when the companies merged, he became chief surgeon of the Detroit Copper Mining Company.(2) He continued to hold this post until 1919, when he was discharged from active military service.(1)

He was in charge of the Longfellow Hospital at Morenci. In politics he was a Democrat and interested in party workings, but never aspired to hold an elective office.(8) This statement was written in 1913, and, as one of his later associates stated, "If it hadn't been true, Tuthill would have torn the publishing company apart." As we shall see he never changed his mind concerning this view about "holding elective office." (9)

In this primitive mining community, and in those days this is probably a glamorous description for it, the only place that an automobile could be driven in the town was the plaza. From there all transportation was either on horseback or by *pes pedis.*(6) Here he began his career as an industrial surgeon and, as we shall see, he brought some innovations into medicine; these are used so commonly and are so well accepted today, that their origin is obscured. While it was the practice of many doctors to put fractures in a plaster of paris cast immediately, Dr. Tuthill didn't do this if he had reason to believe the patient wouldn't return. (Many of his patients were of Mexican and other foreign extraction and felt that one trip to the medic was sufficient). Instead, he would fold several layers of plaster of paris bandages for the splint and then place a stockingette on the leg or wrap it with some sort of elastic bandages, not infrequently an auto tube. He pointed out that the swelling in the leg after the fracture cuts off circulation and he didn't care particularly for this to occur in his patients.(5)

He was a master of improvisation. He felt much happier if a potato masher, some nails and some odd pieces of steel were in the operating instrument setup. It was in Morenci that he removed a large tumor of the uterus, operating on a Mexican miner's wife on a dining room table. His anesthetist was a one-eyed grocery clerk who administered the chloroform under Dr. Tuthill's guidance. The tumor was difficult to extract, so he had them sterilize a corkscrew and, in those days the corkscrews had large wooden handles on which one could get a grip, with this he extracted the stubborn growth.(5)

"Considering all of the handicaps of those days, the lack of many things a doctor takes for granted today, we didn't do too badly," he recalled later. He remembered the days of riding 50 miles on horseback to treat patients, delivering babies on dirt floors, and of having directions misunderstood by intent but illiterate patients.(10) During this period of practice, a patient consulted him about a "female complaint." He instructed the patient to take a bichloride of mercury tablet douche every day. The patient had come in from the country a distance of 40 miles; it was several months before he saw her again. She reappeared and stated that she was very much better but that this was "certainly a strong medicine." Each time she took one of those pills she promptly "vomited it up," but it did improve her trouble a great deal. This he would relate as an example of how not to give directions to a patient. The directions must be simple, they must be explicit, and it was only "a sensitive stomach" that saved his patient's life.(10)

In Morenci, the living conditions were difficult for his charming wife. She submerged her own dislike for the surroundings and kept a beautiful home for her husband. His daughter remembers that the most frequent method of announcement that he was home for lunch would be the sounds of ragtime music on the piano. This seemed to be one of his principal methods of relaxation in those busy, early days.(6) She further relates that although as youngsters, they sometimes plagued their mother, "I knew that one steely blue-eyed look from father put us in our places." She also recalled that when they were living in Morenci, "a little Italian girl, there were loads of Italians and others up there working in the mines, worked for us. Her name was Katy Piano. Her father had come to this country and thought that was a real nice name, so he chose it. Katy was an adventurous youngster, and one evening she went up to the saw mill. Her skirt got caught in the belt. Each time

she great wheels turned she 'whamped' her head on the wooden floor of the saw mill." The surgical repair which followed in this remote mining town was probably the earliest of its kind. "He put a silver plate in Katy's head, because the top of it was gone, and Katy lived many, many years until she picked up a little typhus and died of that. In the interval she lived fine with this silver noggin."(6) Not only did he improvise "noggins," but he also improvised metal plates to use in cases of fractures that were comminuted and compounded. On one of his trips to New York, he related his experiences with bone plates, a few years later the Lane plate appeared.(10) This may have been a coincidence.

It was here that Tuthill began his avocation as a gardener. His daughter recalled that "he hauled top dirt and covered an area of slag in order to plant his flowers. This was a continual battle and not only did the slag work up through the top soil, but the fumes from the slag dump and from the smelter killed everything unless you sat up at night."(6)

Gardener and Soldier

Frank Hayes, who was later his regimental adjutant, remembered that Tuthill played tennis in Morenci, but this was very rare, his duties didn't allow him much time off. Tuthill had strong likes and dislikes. "He was very frank, and you might say brutally so, if he didn't like somebody he told them so."(12) This characteristic seemed to be established early, he never wavered from it, and this later led to a description comparing him to the immovable granite mountains of this state.

He was elected a commissioned captain, Second Troop Cavalry, National Guard of Arizona at Morenci, July 16, 1903. In those days the officers were elected, but he was elected to this post for good reason. He organized the troop. Not only did the men provide their own uniforms and horses, but the officers rarely had anything left of their two weeks pay for the field work. They used their own pay to supplement the rations supplied to the men. Incidentally, they bought their uniforms from Batterman's Supply Company in New York City.(12) Thus the military career began!

The adjutant general's report of Arizona for 1905 relates how Captain Hayden and his company maneuvered against Captain Tuthill and the Second Cavalry troops during a field problem on Aug. 5 of that year. Senator Hayden recently commented upon this by stating, "The report does not say so, but my recollection is that Captain Tuthill made a better showing than I did on the original maneuver of Aug. 5."(3)

The Second Cavalry Troop made a practice. march of about 120 miles in the mountains, starting Sept. 18, 1908, and returning Sept. 27, 1908 to its home station, Morenci.(14). Tuthill gave his corporals plenty of cross country experience.

In August 1910, the Arizona National Guard was reorganized and Dr. Tuthill was elected to the rank of colonel of the First Infantry of Arizona. At this time, Carl Hayden, then a major, led the movement to elect Tuthill colonel. They all felt, "that he was the best qualified."(12) We shall see how the judgement of Hayden, on this and on other occasions as it relates to Tuthill, proved to be well founded.

In 1910, Colonel Tuthill took his regiment to Atascadero, Calif., for summer training. On arrival it was raining, no shelter, so he ordered the Pullmans moved to a side track, at some expense to the government, and kept his men in their berths. Many explanations were asked for and received, "Until at about the 40th indorsement, the war department asked 'By whose authority were these Pullman cars held overnight?' A famous, terse Tuthill telegram stated, 'Mine. Tuthill'," and with this the indorsement rituals ceased.

It was during this time that he established the principal "That an organization is just as strong as its corporals." He was very strong on training non-commissioned leaders and he never stopped saying that they were so important till the week he died.(13)

"His interests, aside from his profession, are those of a broad minded, public spirited and progressive citizen. While as a physician and surgeon, he had behind him a commendable record."(7) So noted a biographer in 1916.

Arizona has nearly always, since early Territorial days, had some sort of military organization. Sometimes it seemed, to be sure, that the militia was a stepchild of the Territory, but by statehood, it was established on a firm basis as a national guard.(15) This was not an accident.

The delegates elected to the constitutional convention were the result of an election held Sept. 12, 1910 according to instructions of the

Enabling Act.(16) "That of Graham County was composed of five members, one of whom was Alexander M. Tuthill."(16) He served on two standing committees for constitution making;(10) Private corporations and banks;(15) Militia and public defense, Chairman Tuthill, Osborn and Standish.(17) Here were the people responsible for the beginning of an elite national guard. The minutes of this constitutional convention were not recorded in detail, but fragments of the discussion are available. The controversial issues of initiative referendum and recall came before the convention during the first week of November 1910.(18) The crisis came on Nov. 10. The lines were clearly drawn when the battle reached its peak. One reporter, friendly to the conservative interests, wrote his story as follows: "What is declared by many as the final nail in the coffin of statehood for Arizona was driven in today by the recommendation of the committees of the whole for the passage of the recall measure, which includes the judiciary, in spite of the valiant efforts of conservative Democrats to add an amendment limiting the recall to all officials except judges, from the original measure as reported by the committees on executive impeachment and removal from office. All Republicans voted against it and three Democrats, "Tuthill, Cobb and Elinwood." (18)

Things moved along rapidly, he was chief surgeon at the Longfellow Hospital, carried on many social and civic duties in his community, and had begun to train a crack infantry regiment. On occasion, when the mines at Morenci were strike bound, units of the Arizona National Guard were assigned to strike duty. Obviously the local guard was not called up to serve in their own community. Tuthill did not believe that this should be a duty of the guard under any circumstances.(11)

He never left the community during these times of crisis, as did many other company officialsh. He later stated that he felt that he was not molested because the strikers might need his professional services, but others felt that their respect for him as a man carried just as much weight.(11)

Some time after the constitutional convention, Greenlee County was carved out of Graham County and a considerable part of this effort is attributed to Tuthill. Soon he was elected president of the Greenlee County Medical Society. This is not now recommended as a method to follow.

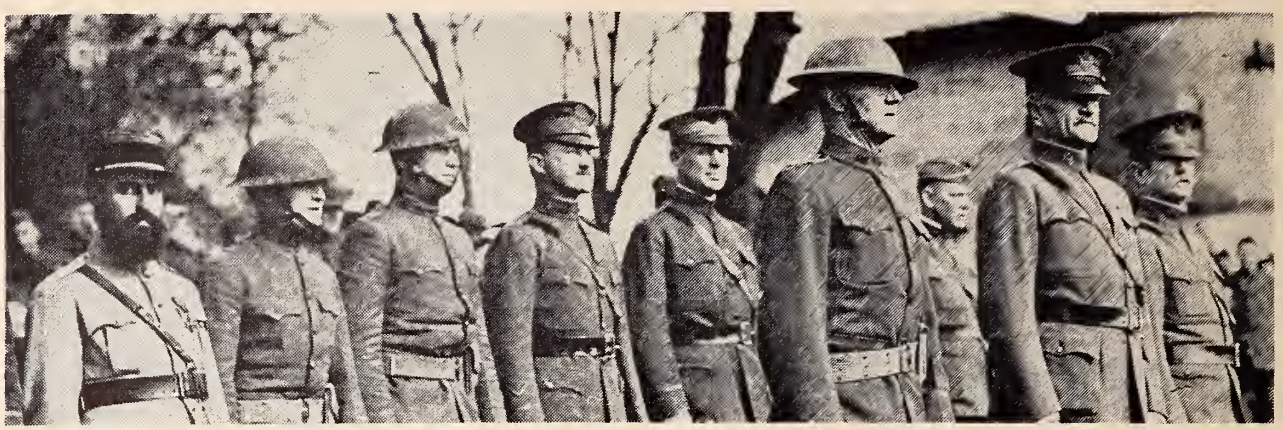
Along the border, things were somewhat unsettled and the Naco incident in 1912 had necessitated the movement of units of the Arizona National Guard to the border. The 158th Infantry, of which Tuthill was now colonel, was ordered on the border in 1915 and remained there until 1916, when the United States entered World War I.

Here again, he demanded a high degree of performance. He was tough, but fair. Some enlisted men with him on the border in 1916, learned this. The colonel had ordered some young officers to take a group of troops and build adobe shelters. The officers were not inclined to be overly industrious, with the result the enlisted men reacted accordingly. The housing project lagged. This persisted until Colonel Tuthill was informed what was going on. He reprimanded the officers, restricted them, and ordered them to join the privates in manual labor. Construction was completed in a short time! This obtained for him one of his early sobriquets — 'Doby Al.'(5) At a dance held at Naco, Colonel Tuthill was informed that the orchestra was composed of union men and playing would cease at midnight. "I am a Union man myself," replied the Colonel, "play on." They did.

Mrs. Frank Hayes (1) states that she went from California to Naco to visit her husband, who was on duty with Colonel Tuthill's regiment, and lived in the Bullet Proof Hotel for a couple of weeks. She stated "The only house with a bathroom in it belonged to the colonel and his wife, for which we were all very grateful." The Bullet Proof Hotel was built of adobe, and in it everyone felt perfectly safe from flying Mexican bullets out on patrol.

Another time, he was having a little difficulty with the bandmaster at Naco. After the bandmaster had received one of the terrific Tuthill "chewing outs," he remarked that he just didn't understand colonels, and to this Tut replied, "In my book, the bandmasters make it a point to understand colonels."(13)

With the entry of the United States into the war, Tuthill's unit was drafted into federal service and was immediately sent to Camp Kearney, Calif. to begin training. This closed the Morenci years.(9)



Reviewing party during inspection of 40th Sunshine Division. In early March of 1919 near Bordeaux, France. Front row left to right: General Tuthill, acting Division Commander, General Pershing, Commander, American Expeditionary Forces, General Walsh.

WORLD WAR I YEARS
1917 - 1919

Camp Kearney, Calif. was about 12 miles northeast of San Diego. The Arizona National Guard regiment was sent here, and it became incorporated into the 79th Brigade of the 40th Division.(12) It was here, and unbeknown to Tuthill, that his friend Carl Hayden made another recommendation, "I told Secretary Baker that I had served with him in the National Guard of Arizona from the time when we were both captains in 1905 until I became a member of congress in 1912, and that I was confident that investigation would show that he was fully qualified to command a brigade in time of war." (3)

"Alexander M. Tuthill was appointed by President Wilson and confirmed by the senate to be a brigadier general in the national army on Aug. 5, 1917."(3) If you, the reader, feel that there was any political overtones in this appointment, his record as a brigade commander will be briefly reported.

The inspection reports which filtered into the war department from regular army officers, who were breathing down the back of every brigade commander, were excellent with regard to Tuthill's brigade. You should know that he was the only brigade commander of national guard origin to retain command of his brigade all during his tour of duty, both in the States and in France. Political overtones are now silenced once and for all, and the brilliant training record of a man stands forth.

On occasion, the 79th Brigade maneuvered against regular army troops at Camp Kearney. On one particular problem, Tuthill's troops were at some distance from the post and their problem was to overcome resistance of national army troops stationed between them and the camp. He maneuvered so well that he was in the camp, and without the referee declaring a single man killed, before the national army troops knew what the hell was going on.(11) During this time he became known as "Old Iron Pants."

Instructors were detailed from the French and British forces to acquaint the troops at Camp Kearney with trench warfare and the use of hand grenades. Tuthill later stated that his troops never saw a grenade before they got to France. On July 4, the French officers came to his headquarters and requested permission for a pass to enjoy the celebration in the city. Tuthill thought this was an excellent idea since "your country had a great deal to do with obtaining this holiday for us." Soon afterwards, the British officers appeared and also wished to celebrate. His reply to their request carried the message to them that this was the first time in his experience that he had ever known officers of a country to "celebrate the only major defeat which their army had ever suffered."

During this time, the families of most of the officers lived in San Diego, and so did Tuthill's wife and children. Somewhat to his annoyance, but also gratification, he was known as the officer who was married to "the beautiful Mrs. Tuthill."(6) She was described as having the most "beautiful coloring, beautiful hair, and lovely blue eyes with a very beautiful skin and was always dressed to perfection and a lady at all times. I remember one special occasion when we had a dance at the Coronado Hotel, and the general and Mrs. Tuthill led the grand march. As they walked in, there was a quick silence. It

was such a wonderful tribute to this general and his lovely wife."(11)

During the time the division remained at Camp Kearney, the 40th Division, of which the 79th Brigade was a part, became a replacement training division. "We trained three different divisions and sent them as replacements overseas. We received many compliments on the ability and training of those men, and this reflected directly on the ability of General Tuthill. There were some, and not a few, who believed that his brigade was the best training brigade in the army, and one of the inspectors of the encampment on the border said, 'The first Arizona Infantry is the best infantry regiment in the United States Army.' "(11) In 1918, the unit was sent to France and here again the 79th Brigade was used as a training unit, somewhat to the chagrin of its commanding officer. "The sad part about this was that both the 41st and the 40th divisions, because they were highly trained and had performed duties exceptionally well, actually in a superior manner, the records stated, when they arrived overseas went into training. The first, second, and third divisions were supplied by replacements from them. At times, as much as a battalion was sent from a replacement division to implement and strengthen the divisions on the line."(12)

To Tuthill's brigade was assigned the duties of guarding General Pershing's headquarters at Chaumont. "Old Iron Pants" appreciated the fact that his brigade was honored by the record of the most highly trained outfit in the army. When a greater portion of his brigade was thrown into the lines, due to a German push, direct orders were given that he not command it. This led to inquiry. First he went to Maj. Gen. Hunter T. Liggett, his army commander, who dashed his fondest hopes and told him that they had plenty of officers who could stay on the lines, but few if any, who could train troops. With this, Tuthill was off to Pershing's headquarters and it is not clear whether he interviewed "Blackjack" or his chief of staff. But there is still a hallowed spot at Chaumont, a scorched patch of earth, where Tut stood, received his chewing and some of it conveyed the thought, "We are not going to waste your talent on the lines, you have your orders, . . . now get the hell out of here."

This indeed was a turnabout, for "Old Iron Pants" was the scourge of all of the "yard birds" in his area. He was thought by some to be the most accomplished "chewer-outer" in World War I, and no doubt in some ways was succeeded by "Old Blood and Guts" Patton in World War II.

Like all accomplished military commanders, he knew that a well trained, well disciplined soldier stood more than an even chance of surviving. The untrained and careless infantryman received a white cross very quickly, and his family a black bordered telegram.

Once when his troops were moving across France in a train, the general took a few minutes off to get cleaned up in a shower in the railway station. Without warning, the train began to pull out and a very discomfited, partially clad general did double time to catch his train.(11) His swearing was prolific and prodigious, but not blasphemous!

He was the only doctor commissioned as a line officer commanding troops, in France, in World War I. To be sure, Maj. Gen. Leonard Wood was on hand, but due to the machinations of Senator Warren, Wood not only was not allowed to lead the AEF contingent, he was relieved as chief of staff. He got to France, but not in a command position. On occasion, General Tuthill would drop into a hospital and cause some consternation. He would start to do some medical work and would explain that the stars on his collar were camouflage. "At home I am an industrial surgeon, and in Arizona we see plenty of gunshot wounds."

In order to satisfy his appetite for action, he did make AWOL visits to the front. At this particular time, a shell went off fairly close and knocked the pipe out of his hand. "Every time I tell this, the shell gets closer," he often related.(20)

General Pershing wrote a letter of commendation for the 40th Division, of which Tuthill's brigade was a unit, and it stated in part, "Since its arrival in France its personnel has been used to supply replacements to divisions in the line. The part these men have played is a matter of history with the units with which they fought and were identified."(27) General Tuthill's brigade was further honored by the fact that the guard of honor for President Wilson on his visit to the Paris peace conference was drawn from

Tuthill's brigade, Brigadier General Tuthill commanded the guard of honor himself. In March 1919, when he returned to New York, a reporter asked, "What decorations did you receive, general?" The straight-faced brigadier replied, "I received the 'Pomme-de-Terre'."

He returned to California to visit his family and was discharged from active duty on April 10, 1919, in El Paso, Texas. For a time the military career was in abeyance.

THE PHOENIX YEARS
1919 - 1958

In 1919, after his release from military service, he went to New York and attended post graduate clinics for three months in order to "brush up" and again enter into the practice of medicine.

Later that year he settled in Phoenix and his first office was in the Goodrich Building, later in the Professional Building until his retirement in 1952.

He re-entered the practice of medicine with great interest and gusto and again had a very active general surgical practice. His confidence in his ability was not lacking. His ability to improvise has already been related in the Morenci period. He had sufficient confidence in himself that he thought the people of the community would provide him an adequate living in medicine. As an example of that, at one time he was advised that a certain person was suing him because of an opinion he had given about an injury. Dr. Tuthill stated, "Where would they get 12 people who would feel that I would be guilty of malpractice in this state?"(22) Where breathes there a man so bold today?

Of specialists, as they grew to call themselves in his lifetime, he had a considered opinion and it was not good. He was heard to say many times that he was "a specialist 14 ways from the center" and "the center was the patient, not a bone, x-ray film, or laboratory report of some possible vague abnormality in the serum or the urine or the spinal fluid." He felt that "specialization was apt to lead away from the patient and the patient's consideration and that we then start thinking in the terms of numbers or statistics."(22)

In 1921, he was elected president of the Arizona State Medical Society and appointed state superintendent of public health by Gov. Thomas E. Campbell.(23) The Arizona State Health Department has just published a memorial number, reproducing in their bulletin a great many of the activities which occurred during the term of Dr. Tuthill.(24) The state board of health at that time consisted of the governor of the state, Thomas E. Campbell, the attorney general, W. J. Galbraith, and Dr. A. M. Tuthill, as secretary, who was appointed by the governor. He commented on the fact that in six months of 1922, there were 665 deaths from all forms of tuberculosis and noted "climate alone will not cure tuberculosis." The Sheppard-Towner Act was passed and implemented during his administration. This was to furnish field nurses in order to combat the alarming infant and maternal mortality. (As of now, Arizona still is a leader in this particular.)

The health survey nurse reported about soda fountains, "In one place, the cherry not consumed by the purchaser was thriftily transferred to the next drink ordered. In another place, this was done with the ice, which was put into the next glass without the formality of being washed." The health commissioner, Dr. Tuthill, made favorable comments on the school lunch program inaugurated at the Roosevelt School District, No. 66, after he visited there one December day at lunch hour. He commended this district upon its health program. (All these years, this observer was under the impression that Henry Wallace instituted this lunch program and that it consisted of some of the pigs which escaped an early death under his "Kill the pigs and save the farmer" program.) Tuthill's monthly reports bristled with brevity.

During this period, he presented his special plaster splint for use in early fractures, before the AMA in Washington, D. C. Adept, then as always, with his dry, sharp wit, he named it the Specialist's Splint.

Dr. George Goodrich, who had practiced in Clifton, Ariz. at the time Dr. Tuthill was in Morenci, on the occasion of Tuthill's 60th birthday, made some pertinent remarks. He advised the listeners that Dr. Tuthill was a very accomplished person and the first surgeon to use foreign material in bone surgery. He stated that Dr. Tuthill had an Indian silversmith prepare a silver cast plate for the lower third of the leg and that with screws, the doctor closed the two fragments of bone with this silver. This kept the fragments in position. On one of his visits to

New York City, Dr. Tuthill described this method. Dr. Lane then experimented with steel and we now have the Lane plate which Dr. Goodrich attributed to Dr. Tuthill. It must be stated that Dr. Tuthill and Dr. Goodrich were competitors, both in the mining district days and in Phoenix; the fact that Goodrich made these remarks was quite impressive on this occasion. The relationship of these positive characters was not exactly that of Damon and Pythias!

Medical practice held his undivided attention until he was prevailed upon again to render his services to the military. Tut was reappointed brigadier general and assigned as commanding general, 89th Infantry Brigade, 45th Infantry Division, Dec. 1, 1928; promoted to major general, assigned as commanding general 45th Infantry Division, Sept. 15, 1933; federal recognition terminated Sept. 22, 1935 by reason of having reached the age of 64; commissioned major general of the line, National Guard of Arizona for life, Sept. 22, 1935; appointed The Adjutant General of Arizona, Feb. 4, 1936 to June 25, 1952.(25)(26)(27)(28)(29)(30)(31)(32)(33)

As state adjutant general, he steered clear of political activities and interests. For that reason he was able to serve our state through both Democratic and Republican administrations. He always served notice on the governors when he was reappointed, that if they wanted his resignation "they could just name one captain of the national guard."(13) One officer stated he knew of no disciplinary action taken by the general that was not backed up by the governor.(13) Another officer recalled that at one summer training period outside of Flagstaff, the general was especially displeased with the way the exercises had been conducted. He pointed out not only errors in command, and errors in carrying out directives, but he also cited many errors he had personally observed. At the critique, without further adieu, the general stormed, "This is so low in the training index that we have established here through the years that I expect to have the resignations of three and perhaps four officers on my desk when I return to Phoenix, Monday next." The officers had not proved themselves fit to retain command of units of the National Guard of Arizona. Three of them did resign, but one of those he particularly referred to, did not. This officer received one of Tuthill's famous, terse telegrams, "Your resignation accepted, signed, Tuthill."(12)

Advocate of Preparedness

Beginning in 1930 till the declaration of World War II, his fight for preparedness was unceasing. Like Winston Churchill, he foresaw the disarmament debacle. General Tuthill believed our army and navy should be supported just as we support "fire and police departments for an emergency. Each of us hopes the fire will not start in our house, but if it should, the fire department is prepared."(12) Tuthill never missed an opening to strike a blow for preparedness. (34)(35)(36)(37)(38)(39)(40) Finally when war was declared, he allowed, "I have urged preparedness all these years but no one did a damn thing about it."(41)

On Jan. 27, 1940, an editorial appeared in a Phoenix daily paper. While it did not mention Dr. Tuthill's name, observers state it referred to him.(9) "Why Not Run For Governor? The sorry conditions under which a candidate for governor in Arizona must campaign, and contend with if elected, were recently summed up. ". . . When this prominent Arizonian was approached by political workers to run . . . he refused. He declared he would not take the job if elected, 'Because of the 10,000 undesirable acquaintances I would have to make in order to be elected. Furthermore I'd have every unemployable bum in the State of Arizona seeking a job, . . . I wouldn't run'." He never wavered from his repugnance for elective office. Politicians didn't score on Tut.

As early as 1930, Arizona expressed her affection for Dr. Tuthill, when the permanent training camp of the national guard at Flagstaff, Ariz., was named Fort Alexander M. Tuthill.(30) The only living brigadier general to be so honored!(49)

May 19, 1940, Tut announced the promotion of Dr. Clarence E. Yount Jr. of Prescott, to captain. Yount Junior followed his father's footsteps in this post. Col. C. E. Yount Sr. served as regimental surgeon for the 158th Infantry, 79th Brigade, Brigadier Tuthill commanding, in World War I.(43)

On Oct. 28, 1940, he was appointed state director of selective service for the State of Arizona, this appointment he held until his death. This, like all other tasks set before him, he did with distinction. The selective service of Arizona never became a political football; he made certain of that when the governor appointed him. While he felt that the selectee



Lt. General Louis B. Hershey and Major General A. M. Tuthill at Selective Service Headquarters.

should always be given the benefit of a hearing, he also felt that everyone owed a debt to his country and should pay it. There were never any blanket deferrments because of occupation in Arizona. He made sure that his staff studied every case very carefully, and so far as is known, no decision of his as state director was ever reversed by higher authorities.(42)(25)(46)(47)(48)

General Hershey, director, selective service system, has on the wall of his den a reminder to keep his directives clear and simple. A telegram sent to him on Dec. 17, 1941 by Gen. A. M. (King Tut) Tuthill, Arizona draft director: "Just received instructions as to screening exams. Stop. My God. Repeat. My God. (Signed) Tuthill." (50)(51)(42)

In 1942 he was appointed co-ordinator of the Arizona Civilian Defense Council and chairman of the State Civilian Defense Board, and again served in that capacity from July 1950 to June 1951.(53)(26)

Another little known appointment was that as co-ordinator and contact agent with the bureau of mines in the matter of explosives controls and licensing, effective Aug. 29, 1942.(54)(55) Tut's own explosiveness was never controlled.

During World War II, and while Dr. Tuthill was still adjutant general of the state, there was great difficulty with a large number of troops which arrived in Phoenix each weekend on pass. He had contacted the commanders of each post and asked that the passes be reduced. He found, that considering the number of men, this would be impossible. He placed undesirable areas in Phoenix off limits, then he doubled the shore patrol and military police patrols. With all of these precautions, there was still a bit of hell raised in Phoenix on each weekend. At about this time, a religionist approached him and asked if there wasn't something the general could do to stop this den of iniquity which was developing in Phoenix. The general asked this man if he had any suggestions to which the delegate replied, "Yes, order all of these men to church on Sunday and that will keep them out of the hands of the devil." To this the general replied, "Well, neither the President nor I, nor the men's commanding officers can order them to attend church; we can order them into battle to be killed but not to church." The delegate then became somewhat incensed and mumbled something about the military had never tried religion, and the general made inquiry as to whether or not the delegate thought that religion had ever been tried. To this the delegate replied, "No," and to this the general replied, "Well we have spent a hell of a lot of money on some damn poor religious salesmen then."(12)

In 1947 he was awarded the Medal of Merit by the President of the United States. This was especially for his work in selective service. This climaxed a long service of honors. No other soldier doctor, or public servant of Arizona received so much recognition from the other states. The Colorado citation read in part, "for his excellent work and untiring efforts as line commander of the 45th Division, of which the Colorado National Guard is a part—." The award,

the Meritorious Service Medal.

The California citation read, in part, "California honors itself by conferring this award to — a former California National Guardsman, in partial reward for his distinguished services." The California Medal of Merit was the award.(57)

Arizona led the parade and awarded, 1935, the only "State of Arizona Medal of Honor" to their distinguished physician-soldier. This was by nothing less than a house joint resolution on Jan. 27, 1935. This read in part, "Whereas, he was the first and the only Arizona National Guardsman to obtain the highest peace time rank in the National Guard of the United States, to wit, that of major general in command of a division, and —."(58)(59)

Again, 1950, with the cold war and the threat of atomic warfare, he sounded again his plea for preparedness. He presented the state civil defense plans to Governor Garvey saying, "We do not know how much time we will have to get ready for atomic warfare."(64)

A recent (1956) political appointee, on this situation, has said we have "three to four hours." How fortunate we all might be if premiers, presidents, foreign ministers, bureaucrats and political bums of *all* countries were forced to occupy the first line of fox holes!

A Third Star

His opinions were frank and pointed. Discussing government planning, "The thinking in Washington has been fairly bum to superlatively rotten." When asked about war with Russia, the quip, "We haven't been out of war with Russia since VE Day."(63)

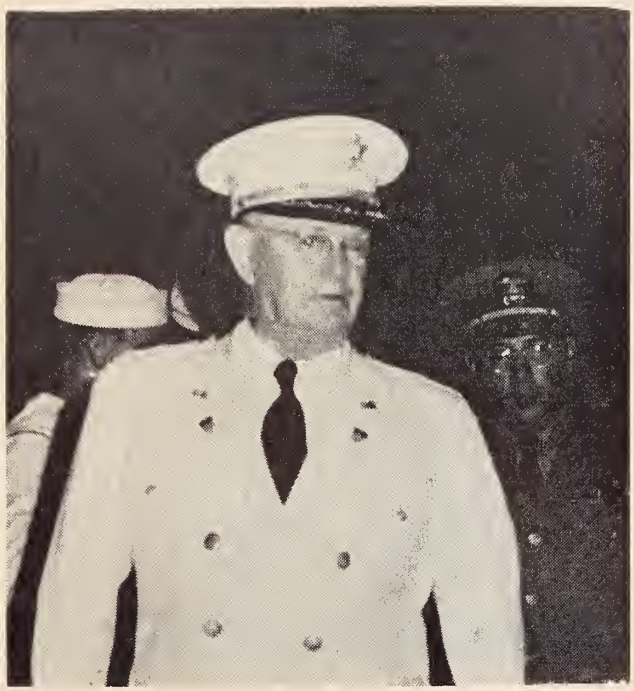
He and Dr. Ruland Hussong carried on a campaign to warn their fellow citizens of their danger, "There isn't a building in Phoenix that would stand an atomic blast in its vicinity!"(66) While some fruit came from this effort, Cincinnatus was again unable to arouse his fellow citizens to the danger. A pity!

In March 1952, Major General Tuthill, a veteran head of the Arizona National Guard, commissioned his grandson, James N. Warbasse, a second lieutenant in the guard. The ceremony took place on Warbasse's 21st birthday and at this time, Tuthill had served the guard over 38 years.(60) In the same year, Dr. Tuthill was awarded an honorary Doctor of Philosophy degree from the University of Arizona.

Tut retired from active participation in the

MEET THE NAVY

"Piped Aboard" P.U.H.S. Stadium June 23, 1945. Major General A. M. Tuthill; Rear Adm. F. C. Deuebrick, U.S.N.; Major Fleming; Commd. E. R. Anderson, U.S.N.R.



★ ★ ★





The Physician. At his desk 1948.

national guard and at a special ceremony during the summer training of the guard at Fort Huachuca, he was awarded the third star by Gov. Howard Pyle, making him a lieutenant general for life in the Arizona National Guard.(61)(62)

In 1952, Dr. Tuthill, 81 years old, 57 spent in the practice of medicine, retired from medical practice to devote himself to his garden and selective service.(26)(6)(10)(5) He elected not to transfer his patient's records, and they were all burned. What pungent histories must have made the chimney trip! He stated that he didn't feel that he could continue the strenuous practice of medicine inasmuch as "any doctor worth his pepper is always at the beck and call of his patients."(6)(10) As he closed his office, he opined: "I do not like onions and some people, I like to fish."(6)

The warm, loyal appreciation given him by his patients is best recounted in the words of a patient. She said Dr. Tuthill always seemed to understand her problems exactly. On the occasion of her fifth pregnancy, she feared a threatened abortion might terminate it. After an examination he stated, "Well if you fall out of the fourth floor of the Goodrich Building, you wouldn't lose your baby." (73) She didn't fall or abort.

"As a neighbor, I have watched this remarkable person for years. Before leaving for the office, you would find him strolling in the garden. This is not his first garden, he has been at it since he arrived in Morenci in 1889." His avocation was not unattended.(66)

In spite of the fact that he was a physician before entering into any phase of military service, he never served as a military surgeon.

Dr. Tuthill died, in uremic coma, at the Veterans' Administration Hospital in Phoenix, Ariz., May 25, 1958. The state had lost its most revered doctor-soldier.

General Orders No. 1, Military Department, State of Arizona, dated May 26, 1958 reviewed his military accomplishments, his awards and decorations and stated, "The body — will lie in state in the rotunda of the Capitol of the State of Arizona from 1000 hours till noon 28 May 1958 and the funeral services will be conducted at Trinity Episcopal Cathedral at 1230 hours, 28 May 1958." (67)

He was buried with full military honors on May 28, 1958 in Phoenix, Ariz.(68)(69)(70)

An editorial described him, "A peppery individual with a hard exterior, he never believed in show for show's sake. Although he thought a lot of people sought medical attention when they didn't need it, he was ready to give generously of his talent to those who needed it. He was one of the few generals in France — Leonard Wood was another — who could treat patients when he inspected an army hospital."(71)

The bulletin of the Arizona Public Health Association in a memorial number made this comment, "Healer of the sick, commander of men, molder of the very foundations upon which he helped to build this great State of Arizona, Alexander Mackenzie Tuthill was a man to whom others instinctively turned for leadership. And he did not disappoint them."(24)

Lt. Gen. Lewis B. Hershey said among other things, "Any recital of his many accomplishments and his eminent success in each fails to give an adequate description of 'King Tut' as he was affectionately called. He somehow or other reflected a ruggedness of the state which he had done so much to build. There was never any

doubt about what he stood for, and even less doubt about what he would stand for. He was forthright and the chips might fall where they may —. His integrity like the mountains of his state, stood high and as immovable."(72)

Perhaps one of his grandsons awarded him the most succinct epitaph. When he wrote, "If the meek should inherit the earth, I suspect, it will only be after grandfather and a few others like him have damn well shown them how to run it!"

Acknowledgment

I am indebted to Dr. Tuthill's family, his many friends and proteges, the officers of the Arizona National Guard, and to many librarians for their aid in providing the material for this sketch. To name them would be redundant — to omit one would be a discourtesy.

J.W.K.

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Topics of Current Medical Interest

THE ARIZONA MEDICAL ASSOCIATION, INC.
826 Security Building
Phoenix, Ariz.

Sept. 15, 1958

COUNCIL ACTION
Medical School:

IN ORDER to fully apprise the membership of our association of its action, council in special session met in Phoenix, Sunday, Sept. 14, 1958, to give further consideration to the question of a medical school for Arizona. Following due deliberation, it was unanimously determined:

"That in proper language a public release be prepared pointing out that the medical association strongly favors a medical school as soon as the practical details of its establishment can be worked out; further, that we welcome the interest and contributions to this question being made by other groups who are also supporting a medical school for the State of Arizona; further, that in keeping with the previous stand of our association, we believe that the study of the practicality of establishing a medical school must be hastened; further, that in view of a recent action of the board of regents, which is the governing group of our institutions of higher learning, we think that the quickest way to decide this entire question is to support the study proposed by that board; and further, to that end, we are making a contribution of $1,000 to help defray the costs of that study, and that we urge our fellow citizens and other groups interested in an Arizona medical school also to contribute so that study can be begun quickly."

ARIZONA – AMERICAN MEDICAL EDUCATION FOUNDATION

1957 Award of Merit:

Doctor Hamer reported that this association had again received the AMEF Award of Merit for its 1957 contribution toward medical education.

AMEF Contributions by Pharmacists:

It was reported that on recommendation of the Arizona AMEF committee, council was polled by mail on the question of the local pharmacists being asked if, rather than giving gifts of calendars, fruit cakes, highball glasses, desk telephone directories, ball point pens, etc., to the doctors at Christmas time, they would contribute the equivalent in money to AMEF. The results of the poll indicated eight members in favor of the idea; three members opposed; one member was doubtful and seven members not voting.

It was recommended by council that, if the representatives of the drug stores, the detail houses and the surgical supply companies feel that it is in accord with their advertising policy to give Christmas gifts to doctors of medicine, that instead of giving such gifts, they be asked to donate to the AMEF.

Suspected Tuberculosis-Case Reporting:

The professional board, by action taken at its meeting held Aug. 10, 1958, recommended to council the establishment of a policy, supported by the state association, that in cases of suspected active tuberculosis, the physician in charge of the patient submit to the Arizona State Department of Health a report on a chest film, certified and signed by a qualified radiologist; that the physician also submit a report on a series of three gastric washings by a certified laboratory, signed by a certified clinical pathologist; and that such procedures be carried out within 30 days of the request.

It was recommended by council that this policy be approved with the exception: (a) that, as relates to chest films, the phrase "qualified radiologists" be amended to read: "*qualified practitioner of medicine*"; and (b) as relates to gastric washings, the phrase "certified laboratory, signed by a certified clinical pathologist" be amended to read: "*qualified laboratory, signed by qualified employes.*"

Optometric Examinations for Blindness:

The professional board, at a meeting held Aug. 10, 1958, was informed that the National Foundation for Eye Care and the American Medical Association opposes a proposal considered in an amendment to the social security law authorizing optometrists to determine blindness in public assistance cases. The American Optometric Association proposes that optome-



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SEARLE

*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

trists be authorized to make examinations for blindness in all governmental programs. The foundation repeated the argument that every time a person is declared blind by an optometrist alone, a chance is lost to determine a true medical cause of the blindness and to appraise chance of rehabilitation or cure. The AMA also urged that, for the protection of patients, this authorization be dropped, as it feels ophthalmologists should be the ones to so determine.

Industrial Commission-Osteopathic Consultations:

The professional board, in meeting held Aug 10, 1958, reviewed the problem submitted to the association's president by the chairman of the industrial relations committee referable to consultation with osteopaths in its capacity as a medical advisory board to the industrial commission dealing with industrial compensation cases. It was suggested in response:

"That insofar as the practice of medicine by doctors of medicine in this state can satisfy all of the requirements of the industrial commission for deciding on such treatment for their patients, that we feel that the doctors of medicine themselves are fully covered for thier problems; and insofar as we are not privileged to freely consult with the other branches of the healing arts (non-doctors of medicine), that we feel the industrial commission, since they do recognize the other branches, are in a position of having to settle their own problems of consultation and providing such consultation as the other branches need, in their own way; and that we recommend that no attempts be made to try and have the medical profession fill in the deficiencies in the other branches of the healing arts for the industrial commission's convenience; and that we feel that this recommendation is perfectly sound, even for the good of the patient, since the industrial commission is privileged at any time to transfer the care of a patient from one branch of the healing arts to another, if his condition demands such transfer.

It was moved, seconded, and unanimously carried that we (industrial relations committee) do not meet with osteopaths; and if the industrial commission has to meet this problem, that they must provide their own board to handle osteopathic compensation cases.

LESLIE B. SMITH, M.D.,
Secretary



MEDICARE PROGRAM MODIFICATIONS EFFECTIVE OCTOBER 1, 1958

BY PREVIOUS letter, dated September 18, 1958, you were notified of this association's action as follows:

"Effective on and after October 1, 1958, The Arizona Medical Association, Inc., directs its membership to render services to eligible military dependents, whether living with the military sponsors or not, *ONLY*, if authorization for the specific care required be certified first by appropriate designated uniformed services authority, excepting in bona fide emergencies."

In special emergency session Sunday, October 5, 1958, the Medicare Committee and Medicare Adjudication Committee met jointly with the council of this association in conference with Floyd L. Wergeland, Colonel, MC, executive director of the Office of Dependents' Medical Care. Before the joint meeting for discussion was the above action of council. Colonel Wergeland reviewed events leading up to the Medicare Program modifications deemed essential to carry out the mandate of congress and answered many of our questions of deep concern to all of us. With his explanations and certain assurances given to those in attendance at this meeting, the Medicare committee recommended to council that it defer implementation of its previous action to allow sufficient time, prior to contract renegotiation deliberations in February next, to adequately evaluate the modified program.

Council received the recommendation of its Medicare committee and following due deliberation concurred therein with the reservation that prior to contract renegotiation in Feb., 1959, on the basis of such accumulated experience, the association will determine whether or not it elects to continue participation in the Medicare Program.

For the benefit of the Arizona physicians, to assist them as much as possible to understand the modification changes and endeavor to be helpful in the processing of and payment for medicare claims, the following explanations are offered: (a) "Summary of Medicare Modification Changes"; (b) "Certification for Bona Fide Emergency" form; and (c) "Certification for acute Surgical/Medical Condition" form, the latter two forms when used will expedite payment for professional services rendered. For additional supplies, contact the fiscal administrator.

SUMMARY OF MEDICARE MODIFICATION CHANGES

Dependents — RESIDING APART — from sponsor continue to be allowed selection of either military or civilian medical sources for care authorized under the program. No "Permit" required. . . .

Dependents — RESIDING WITH — sponsor will be required to utilize military medical facilities to the optimum — when military facilities not available or adequate, appropriate military commander will issue "Permit" which charge physicians must attach to DA Forms 1863 to insure payment of their *claims for authorized care*. . . . These EXCEPTIONS do not require "permits":

1. Cases of bona fide emergencies.
2. Dependent away from household — (statement "ON TRIP" required in either block 3 or 4)
3. Maternity cases — if dependent had reached 2nd or 3rd trimester period on October 1, and had been receiving care from physician prior to that date — DA Forms must be accompanied by statement signed by charge physician to effect that patient was under his care prior to October 1, 1958.

Care No Longer Payable Under Medicare

1. Out-patient care of accidental injuries.
2. Termination visit — code 0042.
3. Out-patient pre- and post-surgical tests and procedures.
4. Neonatal office visits for newborn — codes 0048/0049.
5. Treatment of emotional disorders.
6. Elective surgery — (Medical/surgical care that is desired or requested by patient which in the opinion of the cognizant medical authority can be planned, subsequently scheduled, and effectively treated at a later date without detriment to the patient.)

Surgery Still Eligible Under New Provisions

1. Surgical emergencies requiring immediate hospitilization.
2. Acute surgical conditions.
3. Injuries requiring hospitalization due to severity.

Acute Medical Conditions Still Eligible Under Medicare

Note — For details and complete information — refer to ODMC letter 16-58 attached to the Arizona Medical Association, Inc. letter dated Sept. 18, 1958 — previously forwarded.

CERTIFICATION FOR ACUTE SURGICAL/MEDICAL CONDITION

(Yellow Copy)

Dependent: .....Date Adm:.....
Sponsor's Serial No.: .....Hospital:.....

I hereby certify that the attached Medicare Case was an acute surgical/medical condition wherein the patient was acutely ill and received treatment without delay as time did not permit the patient to anticipate the care required. The procedure required for treatment was carried out at the earliest practicable time compatible with sound surgical/medical judgment and proper preparation of the patient for treatment.
Brief Clinical Summary to Document Above:..
.....
.....
.....
.....
Attending Physician's
Signature: .....Date: .....
NOTE: If sponsor and patient residing together, permit required.

CERTIFICATION FOR BONA FIDE EMERGENCY

(Pink Copy)

Dependent: .....Date Adm:.....
Sponsor's Serial No.: .....Hospital:.....

I hereby certify that the attached Medicare Case was a bona fide emergency requiring immediate treatment at the nearest available medical facility to preserve life and prevent undue suffering.
Attending Physician's
Signature: .....Date: .....
NOTE: No permit required on such cases.

———

APPOINTMENT TO THE BOARD OF MEDICAL EXAMINERS

DR. FRANCIS M. Findley of San Manuel has be appointed by Gov. Ernest McFarland as a member of the board of medical examiners for a term commencing Sept. 18, 1958, and expiring July 1, 1960.

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MEDICARE

Distribution of Physicians' Claims By States, July 1, 1957 through June 30, 1958

State	TOTAL CLAIMS Number	TOTAL PAID Amount	Physicians' Claims(1) Number	PAID TO PHYSICIANS Amount	State
Alabama	17,811	$ 1,646,278.33	11,240	$ 985,641.80	Ala.
Alaska	1,952	227,186.62	1,044	108,605.16	Alas.
Arizona	14,912	1,211,670.54	9,941	736,958.40	Ariz.
Arkansas	16,182	1,429,586.23	10,121	845,148.98	Ark.
California	158,440	14,204,845.06	106,392	7,562,687.51	Calif.
Colorado	12,150	1,022,894.78	8,057(2)	550,425.90	Colo.
Connecticut	7,888	743,666.64	4,395	324,966.60	Conn.
Delaware	4,560	346,671.03	2,557	192,100.92	Dela.
Dist. of Columbia	18,060	1,477,344.74	13,253(3)	906,449.07	D.C.
Florida	41,742	3,747,322.63	25,872	2,058,216.46	Fla.
Georgia	32,432	2,727,405.92	20,313	1,516,335.13	Ga.
Hawaii	11,276	1,134,726.33	6,922	633,682.22	Haw.
Idaho	3,485	328,438.55	2,049	178,703.72	Idaho
Illinois	18,238	2,026,645.98	10,013	885,689.32	Ill.
Indiana	10,388	953,541.08	5,951	455,835.47	Ind.
Iowa	6,650	593,303.02	3,738	267,234.09	Iowa
Kansas	19,646	1,561,568.62	13,083	907,545.69	Kan.
Kentucky	10,612	891,835.92	6,619	487,241.90	Ky.
Louisiana	22,520	1,927,271.03	14,290	1,049,718.02	La.
Maine	8,298	703,992.94	4,598	330,723.78	Maine
Maryland	9,480	864,655.06	5,566	458,998.63	Md.
Massachusetts	30,168	2,762,355.76	19,243	1,264,704.18	Mass.
Michigan	17,594	1,684,770.44	9,466	712,646.79	Mich.

State	TOTAL CLAIMS Number	TOTAL PAID Amount	Physicians Claims(1) Number	PAID TO PHYSICIANS Amount	State
Minnesota	9,696	1,026,832.47	5,959	450,924.28	Minn.
Mississippi	10,464	842,770.21	6,221	499,658.23	Miss.
Missouri	17,348	1,593,650.94	10,382	808,604.54	Mo.
Montana	4,559	369,631.10	2,820	204,871.52	Mont.
Nebraska	10,440	960,553.78	6,228(2)	436,116.41	Nebr.
Nevada	4,752	426,537.05	3,197(2)	220,421.72	Nev.
New Hampshire	3,995	298,578.66	2,473	153,546.98	N.H.
New Jersey	14,289	1,337,732.12	8,947	732,692.10	N.J.
New Mexico	10,281	793,941.47	6,653	443,632.19	N.M.
New York	30,774	2,899,640.67	19,432	1,454,469.45	N.Y.
North Carolina	29,882	2,463,570.31	16,868	1,366,499.57	N.C.
North Dakota	1,552	129,380.76	839	57,909.32	N.D.
Ohio	26,935	2,449,426.78	16,955	1,308,755.82	Ohio
Oklahoma	23,663	1,782,146.80	15,841	999,561.41	Okla.
Oregon	6,706	659,613.24	3,727	304,323.86	Ore.
Pennsylvania	27,942	2,738,626.91	15,894	1,302,553.33	Penna.
Puerto Rico	2,159	141,401.38	1,473	106,103.11	P.R.
Rhode Island	8,941	749,272.62	5,934	383,806.74	R.I.
South Carolina	21,776	1,715,161.80	13,577	1,014,607.63	S.C.
South Dakota	3,903	370,266.36	2,211	189,118.86	S.D.
Tennessee	19,952	1,773,602.09	12,369	977,077,65	Tenn.
Texas	75,064	7,197,160.02	47,102	3,936,143.11	Texas
Utah	3,497	275,613.92	2,222	156,899.76	Utah
Vermont	3,008	262,985.00	1,862	134,470.71	Vt.
Virginia	41,266	3,321,865.14	28,215	2,069,007.78	Va.
Washington	24,465	2,354,667.18	14,988	1,192,391.55	Wash.
West Virginia	8,448	614,504.14	4,535	324,461.78	W.Va.
Wisconsin	9,724	846,354.15	5,593	390,261.70	Wisc.
Wyoming	1,928	125,096.51	1,235	71,682.14	Wyo.
TOTAL	951,894	$84,738,560.83(5)	598,475	$45,110,832.99	TOTAL

(1) Based on physicians' claims (submitted by anesthesiologists, pathologists, radiologists, consultants, etc., as well as the attending physician) paid by contractors July 1, 1957 through June 30, 1958 unless otherwise noted.
(2) Through May 31, 1958.
(3) Through June 19, 1958.

SOURCE: Office for Dependents' Medical Care, Aug. 25, 1958.

BOOK REVIEWS

DRUGS OF CHOICE 1958-1959
edited by Walter Modell, M.D. 931 pages. Illustrated. (1958) Mosby. $12.75.

Unlike any other volume published, this book critically reviews drugs in current use, and explains the basis for choosing one over another. The first in a series of biennial volumes, this 931 page reference is a practical guide to therapeutic decisions. It fills a critical need for an unbiased authoritative reference to classify and critically review drugs in current use and to indicate which of the newer drugs are superior and which are inferior to the old. It also contains a drug index at the end of each chapter which lists the drugs in common use by generic names plus trade names. Alphabetically arranged, this index gives a capsule account of the drug, the forms in which it is available and the dosages. When practical, the proprietary names under which a single drug is marketed are shown along with the name of the manufacturer or distributor. The author is from Cornell.

Stacey's Medical Books, San Francisco, Calif.

FEDERAL LEGISLATIVE ACTION RELATED TO MEDICARE

MEDICARE SHUTDOWN EARLY IN 1959 SEEN AS POSSIBILITY

MEDICARE officials, after another look at the account books, see the possibility of a shutdown of the civilian phase of the program early in 1959. The reason is relatively simple: the $72 million appropriated by congress for the fiscal year will not be adequate. And senate and house conferees agreed that the armed forces should not spend more than that amount. Maj. Gen. Paul I. Robinson, who retired recently as head of the Office for Dependents' Medical Care, says one solution lies in congress changing its mind and voting more funds after it convenes Jan. 7. Another possibility is for the defense department to use other funds to make up its deficit, then explain to congress next session why its instructions could not be followed.

ODMC, in further elaborating on its new restrictions on Medicare use in civilian facilities (brought on by the belt-tightening in congress), said these surgical procedures would be allowed: (1) bona fide surgical emergencies which cannot be handled on an out patient basis, e.g. perforated ulcer, bowel obstruction, (2) acute surgical conditions in which patient is in clinical need of hospitalization without delay, e.g. acute appendicitis, strangulated hernia, pelvic abscess, and (3) injuries of such clinical severity as to require hospitalization but only for treatment of the acute phase. Elective surgery is ruled out, including interval appendectomies, cosmetic surgery, tonsillectomies, routine hysterectomy, and uncomplicated hernias.

PRESIDENT CRITICIZES UNION WELFARE FUND ACT AS INADEQUATE

President Eisenhower has signed into law a bill providing a limited amount of publicity for union-management welfare funds (medical plans included), but at the same time he criticized the legislation as too weak and said it would be ineffective unless tightened up by the next congress. Under the law, the funds are required to register with the secretary of labor and make annual reports, which will be filed with the secretary and made available to any beneficiaries. In a statement Mr. Eisenhower declared:

1. The act requires only summary statements of many important aspects, "making it possible to conceal many abuses."

2. No agency of government is authorized to provide uniform interpretation of the bill's technical terms, and "the chaos that will result is obvious." Failure to designate an agency plan administrators can consult for reliable and authentic opinions, and for report forms, "enables corrupt administrators to hide abuses, blocks beneficiaries from receiving adequate information, and subjects administrators to uncertainties in compliance."

3. The bill's reliance solely upon individual employes to compel compliance through court proceeding is most unrealistic. "Employe suits alone are inadequate as enforcement remedies. Unaided by governmental authority to conduct investigations and institute litigation, individual employes, without financial resources or legal experience, can be easily intimidated, made subject to reprisals and discouraged from taking effective action."

4. The bill fails to give the secretary of labor either investigatory or enforcement powers with respect to reports filed with him.

5. There is no provision for dealing directly with "the most flagrant abuses," such as embezzlement and kickbacks, once they are uncovered.

In conclusion, the President said: "Not only did the congress fail to appropriate any money to administer the custodial and other functions of the secretary under the bill, but the annual financial reports will not have to be furnished until as late as May, if the plans are on a calendar year basis, or for a period of 120 days after the completion of the fiscal year if they operate on a fiscal year basis."

APPOINTMENTS MADE TO CIVILIAN SPACE COUNCIL

President Eisenhower has completed formation of the Civilian Space Agency Council, with appointment of Lt. Gen. James H. Doolittle (Ret.), vice president and director of Shell Oil Co.; William A. M. Burden of New York, former assistant secretary of commerce for air; Dr. Alan T. Waterman of Maryland, director of the National Science Foundation; and Dr. Detlev W. Bronk of New York, head of the National Academy of Science. Nominations of General Doolittle and Mr. Burden will be subject to senate approval in January; Drs. Waterman and Bronk already are in government positions. Un-



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†Round-table Discussion by Leading Investigators, San Francisco, Calif., June 20, 1958.

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der the law, the President heads the council, whose other members are Secretaries Dulles and McElroy; T. Keith Glennan, chief of the new space agency, and John A. McCone, chairman of the Atomic Energy Commission.

TOP DEFENSE MEDICAL POST WON'T BE ABOLISHED

Defense Secretary Neil McElroy has informed Dr. Frank S. Berry, assistant secretary of defense for health and medical affairs, that the latter's post will not be abolished under the forthcoming reorganization of the defense department. The decision has the concurrence of the President. The American Medical Association had worked to save the post.

MEDICARE APPROPRIATIONS
(Public Law 85-724, Aug. 22)

Congress took a long look at the medicare program, now nearing its second anniversary, and decided that the civilian phase of the program had to be curtailed in favor of greater use of military facilities. The house first trimmed $10.2 million from an admittedly slim budget of $70.2 million, and then wrote into the defense department appropriation a section that would have prevented the services from asking for any supplemental appropriation for the entire fiscal year, or using other funds. When it reached the senate, Medicare and defense officials joined with the American Medical Association and others in a plea for restoration of funds and elimination of the destructive section. This was accomplished through an amendment sponsored by Senator Knowland (R., Calif.). In the ensuing conference, language was written in a report which, while not having the full force of law, nonetheless directed the military to start cutting back on some aspects of civilian medicare. To this end, the Office for Dependents' Medical Care announced new restrictions effective this fall. They are aimed at higher military facilities utilization, such as requiring dependents living with sponsors to use military resources unless they are not available.

SOCIAL SECURITY AMENDMENTS
(Public Law 85-840, Aug. 28)

As it has done every election year since 1950, congress again amended the Social Security Act. It increased old age, survivors and disability insurance benefits by 7 per cent, in response to demands that benefits keep pace with the cost of living. It provided an additional $197 million for public assistance recipients, and gave states greater flexibility in use of federal funds for financing the medical care of the aged, blind, the disabled and dependent children. To finance the liberalizations, the law increases the taxable base from $4,200 to $4,800 of gross employment earnings and raises the tax in 1959 from 2¼ per cent to 2½ per cent for the employer and employe, and from 3⅜ per cent to 3¾ per cent for the self-employed. Additional increases are scheduled for 1960, 1963, 1966 and 1969. By 1969, the self-employed will be paying 6¾ per cent of earnings.

Congress left the door ajar for consideration by the next congress of bills using the social security system to provide hospital and medical care for OASDI beneficiaries. An articulate minority wanted this enacted this year via the proposal of Rep. Aime Forand (D., R.I.), but congress decided against it. However, the house ways and means committee directed the administration to make a study and report by next February on the various possibilities for financing medical care for the aged, with particular emphasis on the possible practicability of increasing OASDI taxes and using the money to purchase health insurance on retirement. The AMA took a strong stand against using the social security system to provide such care, viewing it as a beginning of national compulsory health insurance.

WHITE HOUSE CONFERENCE ON AGING
(Signed Sept. 2, Awaiting P. L. No.)

The President is instructed to call a White House conference on aging in January 1961, by a measure passed late in the session. This national meeting will bring together federal, state and local leaders working in the field of aging. Their objective: To arrive at facts and recommendations on the utilization of skills, experiences and energies, and the improvement of the conditions of older people. A final report would be submitted to the President within 90 days after the conference. A series of state-organized meetings would precede the 1961 conference. To help the states finance these meetings, the law provides up to $15,000 a state with a minimum of $5,000. These figures, reduced from the original $50,000 per state, were used with the anticipation that states would also participate substantially in the financing. The AMA gave this legislation its full support; author of the bill was Rep. John Fogarty (D., R.I.).

CHEMICAL ADDITIVES IN FOOD
(Awaiting Presidential Signature)

In an 11th hour action, the senate passed a house-approved bill on the last day of the session which prohibits use of chemical additives in foods until their pre-testing has been approved by the Food and Drug Administration. Elaborate provisions are made for appeals to federal decisions.

HEALTH APPROPRIATIONS
(Public Law 85-580, Aug. 1)

In response to appeals from a number of sources, the 85th congress set a new high in money voted for the department of health, education, and welfare, particularly for the U.S. Public Health Service. The latter now is spending at the rate of close to three quarters of a billion dollars a year. Last year, PHS received from congress approximately $562 million; this year's total is $745,747,000. Members of congress find it difficult to vote against more funds for medical research and a myriad of other health programs, once health-oriented house and senate committees have agreed on certain figures for the ensuing year. Research money for the seven institutes was increased nearly 40 per cent over last year, while the Hill-Burton hospital construction program received a boost of close to 55 per cent. If one is to judge from a recent study group of HEW, the peak of spending in the health field hasn't yet been reached. Congress also voted $6.9 million for the long-sought new quarters for the National Library of Medicine.

HILL-BURTON AMENDMENTS
(Public Law 85-589, Aug. 1 and
(Public Law 85-664, Aug. 14)

Because a full year's notice is deemed necessary in future planning, congress voted a five-year extension of the Hill-Burton hospital construction program. The act otherwise would expire next June. In a separate action, congress amended the act to permit for the first time Hill-Burton loans at the same rate of interest the government pays for its own borrowing. Under the loan act, an applicant would have to comply with all HB regulations, the same as regular HB applicants. The extension bill is Public Law 85-664, and the loan act, Public Law 85-589. The AMA testified in support of the Hill-Burton extension.

DEFENSE REORGANIZATION
(Public Law 85-599, Aug. 6)

At the prodding of the house armed services committee, the defense department is finally reorganizing. The number of assistant secretaries of defense, which congress felt had grown too large, was trimmed back by one. The affected post in all likelihood will be that of assistant secretary for health and medical affairs, which would be downgraded to that of special assistant. The AMA fought hard to have the act make clear that this post would be saved, and it continues hopeful that something can be worked out before the act goes into effect in January.

PUBLIC HEALTH SCHOOL GRANTS
(Public Law 85-544, July 22)

Eleven schools of public health were promised a total of $1 million annually in federal grants to assist them in professional training, specialized consultative services and technical assistance with the states. The final act was simply an authorization. Efforts were made late in the session by the senate to add $1 million to a supplemental appropriation for a number of agencies. This item was knocked out in conference, which means that funds will not be available until the next congress acts.

CIVIL DEFENSE GRANTS
(Public Law 85-606, Aug. 8)

To bolster sagging state civil defense programs, congress voted grants to the states for purchase of radiological instruments, personal equipment for state and local civil defense workers and for administrative and personnel expenses. Amounts for the first category would not exeeed $35 million; for the second category, not more than $2 million, and for the third, not over $25 million.

MILITARY AND VA PAY SCHEDULES
(Public Law 85-422, May 20, and
Public Law 85-462, June 20)

General pay raises for the military (PL 85-422) included the same increases for physicians in the services. The law also retained the incentive pay schedule for doctors in uniform which has been in effect since 1947. Congress, in a separate act (PL 85-462), also approved salary increases for physicians in the veterans' administration. It voted down a provision that would have given VA optometrists the same professional status as physicians and dentists.

UNION-MANAGEMENT HEALTH AND WELFARE PLANS
(Public Law 85-836, Aug. 28)

To correct abuses in health and welfare plans, congress, after considerable debate, voted a measure requiring both labor and management health and welfare plans to make annual financial reports to the secretary of labor. It exempts plans with fewer than 25 members. Fines as high as $10,000 or five years imprisonment are provided for falsification of reports.

RESEARCH FACILITIES EXTENSION
(Public Law 85-777, Aug. 27)

Two years ago, congress voted a new program of grants to help medical schools and similar facilities doing research in various crippling and killing diseases to construct laboratories and similar buildings or to remodel existing structures. The program was to run for three years, with an annual appropriation of $30 million. With a backlog of applications, the administration sought an extension for another three years. It also asked for a clarification of "multi-purpose" facilities. In the process, the bill was amended in committee so that money available would have been available for both research and teaching facilities. This back-door approach to medical school aid later was dropped by the committee, because it was felt that it would jeopardize passage of the simple extension.

DOCTOR DRAFT EXTENSION
(Public Law 85-62, June 27, 1957)

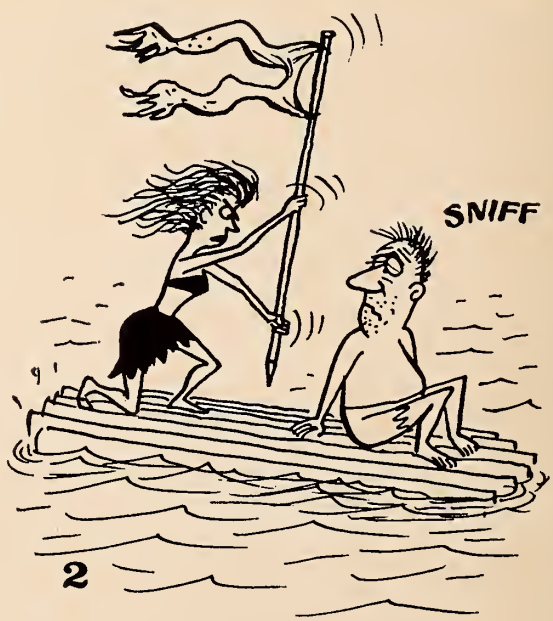
Under this act, passed in the first session, selective service has authority until July 1, 1959 to call certain physicians up to age 35 for military service. Only those doctors with obligations under the regular draft and who have been deferred for any reason may be called. Although the military has been getting enough doctors through new graduates and volunteers, it expects to ask for another extension next year.

JENKINS-KEOGH TAX DEFERRAL
(Died in Senate Finance Committee)

The drive to give the self-employed equal treatment with the employed in setting aside tax-deferred sums for retirement plans moved closer than ever to enactment. A bill passed the house late in July with only a smattering of opposition. But it died in the senate finance committee; a major factor was treasury department insistence it would result in a large tax revenue







loss. AMA, in concert with the American Thrift Assembly, pressed hard for enactment. New efforts to get the measure passed in the 86th congress are being planned.

COMMUNITY FACILITIES LOANS
(Killed in House)

A bill that started out as an anti-recession measure lost steam as it progressed in congress. It provided for low-interest loans to states and communities for a wide range of public works, including construction of community hospitals. The measure was voted down in the house after it had passed the senate.

MEDICAL SCHOOL CONSTRUCTION AID
(Died with the Congress)

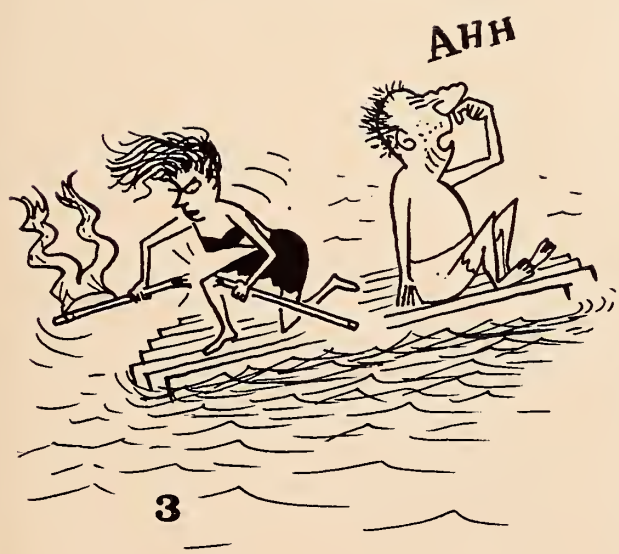
Bills to authorize one-time grants for new and existing medical schools to build classrooms were pending in both house and senate at adjournment. Extensive hearings were held by the house interstate health subcommittee. No bill was reported to the floor because of (1) concern over the segregation issue, (2) a question of whether the states have exhausted all resources, and (3) a reluctance of some committee members to spend the money now. The AMA supported one-time grants in its testimony.

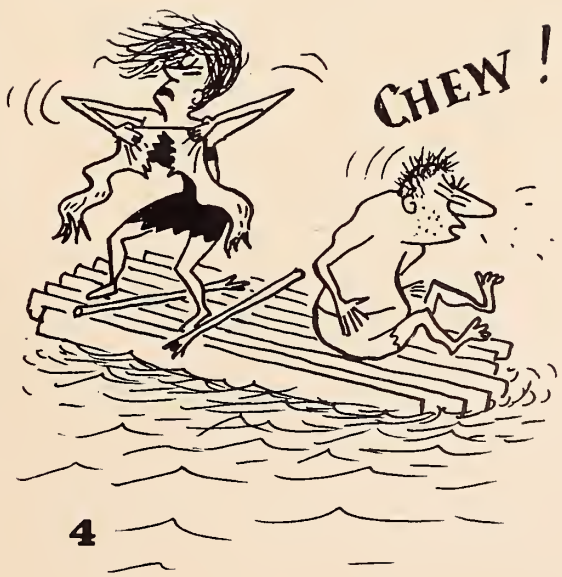
CIVIL AVIATION MEDICINE
(Died with the Congress)

Efforts to establish a civil air surgeon with broad authority in civilian air safety failed to pass. But with creation of the federal aviation agency, administration assurances have been given that the needs of aviation medicine will be considered in setting up the new agency. The AMA was a strong supporter of the idea of a civil air surgeon.

VETERANS' HOSPITALIZATION
(Died with the Congress)

Late in the session, as a windup to lengthy hearings on veterans' entitlement to VA hospitalization, the house veterans' affairs committee reported out an omnibus hospitalization bill. The measure had as its major objective the opening of some 5,000 additional beds on which the committee maintains the budget bureau is holding back. It was reported too late for final action. The AMA testified in favor of a clear spelling out by congress of veterans' entitlement to federal care.





NURSING HOME MORTGAGE GUARANTEES
(Died in House)

Efforts to provide new capital for proprietary and non-proprietary nursing homes through FHA-type mortgage loan guarantees failed of passage. The provision, strongly endorsed by the AMA, was part of an omnibus housing bill that failed to pass the house under suspension of rules, after senate approval. Last-minute efforts to separate the nursing home portion of the bill and have it enacted also failed.

HEW CONSIDERS EXPANSION IN MEDICAL EDUCATION, RESEARCH

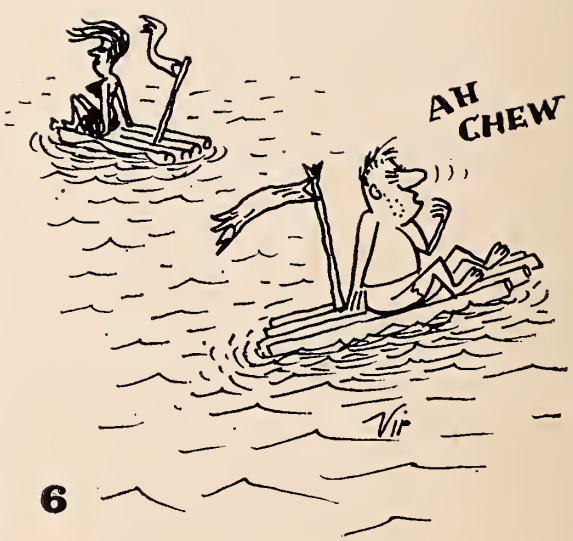
Secretary Flemming of the department of health, education, and welfare is giving serious consideration to the Bayne-Jones report which proposes a wide-scale expansion in medical education and research efforts. Asked at his first news conference about the report made public last July, Mr. Flemming said: "I want to assure you it will not be put on the shelf to gather dust."

Later, he said that he and his staff were going over the recommendations, with the idea that some might be accepted and some modified. He expects that by Oct. 15, HEW will have given the budget bureau preliminary estimates of the cost of carrying out some of the Bayne-Jones programs. Then the final estimates would be included in the HEW budget which is due to be completed in December.

Secretary Flemming emphasized the high caliber of men making up the committee, which spent a year on the study, and said their findings and recommendations merit the most careful consideration. He gave every indication that the general tone of the report was well received in HEW. Chairman of the committee was Dr. Stanhope Bayne-Jones, former Yale medical dean and former head of the joint administrative board of New York Hospital-Cornell Medical Center. Its members were prominent medical educators and research directors in private industry. The report proposed immediate building of 14 to 20 medical schools to supply researchers as well as enough physicians to maintain the present physician-population ratio. It also urged a tripling of medical research spending, reaching a national total of $1 billion by 1970, half to be supplied by the U.S., half by industry and private philanthropy.



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MINE WORKER FUND CLAIMS SAVINGS IN MEDICAL, HOSPITAL COSTS

United Mine Workers' Welfare and retirement fund's annual report claims a 2.4 per cent or $1,448,909 savings over the previous year in total cost for hospital and medical care, "notwithstanding the sharp increase in such costs throughout the nation." The report for the fiscal year ending last June 30 frankly states that the savings are due to the elimination of the free-choice-of-physician arrangement and such other procedures as cutting down on stay in hospitals. The report comments:

The trust fund's official files and records . . . are replete with evidence showing that the primary quality and cost requirements of trust fund regulations were not being met under the previous free-choice-of-physician arrangements whereby the fund had permitted the beneficiary free choice of physician and had paid every physician so chosen for any service he billed the fund, and had allowed him to hospitalize any beneficiary at fund expense whenever and for as long as he desired."

Other report highlights: (1) About 1 million miners and their dependents are covered by the hospital and medical services provided by the fund, and during the past year 85,426 beneficiaries received hospital and medical care benefits, and (2) the fund paid out $58,135,684 for hospital and medical care which involved 1,458,385 days of hospitalization, 1,311,088 hospital visits by physicians and 969,801 office and outpatient clinic consultations.

SOCIAL SECURITY PAYMENTS STILL RUNNING AHEAD OF RECEIPTS

The budget bureau, in its annual midyear review of the federal budget, revised upward from last January the OASI and disability payments being made. OASI receipts for the last year are now estimated at $8.35 billion compared with payments of $9.49 billion. One reason for the rise is a payment of over $300 million to the railroad retirement account to help equalize the actuarial risk of the two systems. Disability payments, on the other hand, continue below receipts — $418 million compared with $957 million estimated to be taken in this year.

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The bureau said that for the rest of this fiscal year, receipts and expenditures under social security amendments voted this summer will be about the same. With a further increase in tax rates scheduled for Jan. 1, 1960, the fund should again start accumulating receipts by the end of fiscal 1960.

SOCIAL SECURITY ADM. EXPLAINS PUBLIC ASSISTANCE CHANGES

Starting Oct. 1, the United States made available to states the increases voted by congress in public assistance funds. In preparation for inauguration of the new phases of the program, the social security administration has issued a description of the new legislation to all state agencies administering the public assistance program. Following is a summary of those parts of the description that are of particular interest to medicine.

How New Formula and Increases Will Affect State Programs

At present the U. S. pays $24 of the first $30 monthly per recipient of old-age assistance, aid to the blind and aid to the permanently and totally disabled. It also pays half of the remainder up to an individual maximum of $60 per month.

Under the new law, the U. S. will continue to pay $24 of the first $30 monthly, but will increase its contribution toward the remainder (up to an average maximum of $65) from a flat 50 per cent to between 50 per cent and 65 per cent. All states will be assured of U. S. help of at least 50 per cent in this upper part of the payments, and the states with relatively low per capita income will receive up to 65 per cent.

At present, states receive from the U. S. $14 of the first $17 per recipient for aid to dependent children, and half of the remainder up to individual maximums of $32 each for the first child and needy adult caretaker and $23 for each additional child.

Under the new system, states will continue to receive $14 of the first $17, but the U. S. contribution toward the remainder (up to average maximums of $30) will be increased to between 50 per cent and 65 per cent, as in the above programs. The exact percentage to which each state is entitled will be determined shortly by Secretary Flemming and published in the Federal Register.

'Average' Will Simplify Administration and Help Meet Unusual Needs

The new law provides a different and simpler system for calculating the total public assistance money to which states are entitled. Now to determine the amount subject to federal matching, each monthly payment must be examined to determine the amount, if any, by which it exceeds individual maximums. Now persons with unusual needs and/or limited resources often get less than they need because of maximums on individual payments.

Under the new plan, the maximum amount subject to federal matching will be determined by multiplying $65 by the total number of recipients in the adult categories and $30 by the total number of recipients of aid to dependent children (providing states match up to the maximum). Within these total amounts, the federal share will be 4/5 of the first $30 per recipient in the adult categories, and 14/17 of the first $17 in aid to dependent children; and in the balance of the payments, the federal share will be 50 per cent to 65 per cent depending upon a state's per capita income.

Some states will benefit financially only through the averaging feature, some will benefit from raising the federal share of the second part of the payment, and some will benefit from both of these features.

Changes in Method of Receiving and Spending Medical Care Funds

At present, the U. S. offers states $3 per month per adult public assistance case for medical care costs, providing the states match this money 50-50, and $1.50 per month per child, with the same matching requirement. This money, which is over and above the individual maximums ($60 for adult categories and $32-$32-$32 in aid to dependent children), must be used for vendor payments, i.e., paid directly to doctors, hospitals, pharmacists, dentists, etc. In addition, the states can give the recipients money for their medical costs within the individual maximums.

A number of states have found that under this arrangement they have not been able to take advantage of all the federal funds available under both the vendor payments and the money payment (to recipients) parts of the federal sharing formula. Furthermore, the recipient, not the state, was responsible for paying the medical bills.

Under the new system, the concept of a

separate accounting of medical care funds is eliminated. The $65 and $30 per month will be for medical care and all other expenses, such as housing and food, and the states may use any part of these funds to pay doctor and hospital bills. Furthermore, states may pay the money directly to vendors of medical care, they may pay it to the recipients with the understanding it is intended for the vendors, or they may pool the funds, for broad, state-wide programs of medical care.

Explaining this change, the social security administration declares:

"The new federal matching limitation of $65 on total average expenditures will cover both money payments to recipients and payments for medical care on their behalf. Presently, payments to physicians, hospitals and other suppliers of medical care are financed separately from money payments to recipients."

19 STATES GET MAXIMUM U. S. AID FOR PUBLIC ASSISTANCE

Nineteen states are entitled to the maximum percentage of federal funds for public assistance, and 19 are held to the minimum under the new system which went into effect Oct. 1. The money includes medical care costs as well as all other items of living expense. While no official figures are available, it is estimated that possibly $500 million (U. S. and state funds) will be spent annually for medical care once the new program is under way. Recipients are in four categories, the needy aged, the disabled, dependent children and their sponsors, and the blind.

The U. S. will pay $24 of the first $30 monthly for adults, and $14 of the first $17 for children. Then the states will receive from the U. S. between 50 per cent and 65 per cent of the remainder of the payment up to an average of $65 per month for adults and $30 for children, with states of relatively low per capita income receiving a higher percentage. The 19 states whose per capita income is above the average, thereby restricting them to 50 per cent, are Calif, Conn., Del., D. C., Ill., Ind., Md., Mass., Mich., Nev., N. J., N. Y., Ohio, Pa., R. I., Wash., Wyo., Alaska, Hawaii. States in the lowest income group, therefore entitled to 65 per cent U. S. contributions, are Ala., Ark., Ga., Idaho, Ky., La., Maine, Miss., N. M., N. C., N. D., Okla., S. C., S. D., Tenn., Utah, Vt., Va., and W. Va. States in the middle grouping, and their approximate percentages are Ariz., 63, Colo., 53, Fla., 59, Iowa, 63, Kan., 60, Minn., 58, Mo., 53, Mont., 54, Neb., 63, N. H., 57, Ore., 52, Texas, 61.

RESIDENT QUOTAS ALMOST FILLED UNDER BERRY PLAN

An upturn in the rate of resident volunteering under the Berry plan since early August has satisfied defense department requirements in all specialties except otolaryngology and psychiatry, where deficits were expected. However, interns continue slow to apply for commissions, and there is a deficit of about 600, indicating only 150 volunteered in the last six weeks or so. The defense department deadline for accepting intern applications for reserve commissions, originally set for Sept. 15, has been extended. If sufficient volunteers do not apply in the next few months, a department spokesman said, a call will have to be placed with selective service under the doctor draft next year.

All interns who applied prior to Sept. 15 may go on active duty at the conclusion of their internship early next summer. Some of those who volunteer in the next few months also will have that privilege if they wish, but others will have to wait until September or later in the fall.

MEDICARE LISTS SPENDING BY STATES FOR LAST FISCAL YEAR

Dr. Frank B. Berry, assistant secretary of defense for medical affairs, has prepared a list of state-by-state expenditures for Medicare for the fiscal year that ended on June 30. Shown are total claims, total paid, hospital claims and bills paid and physicians' claims and bills paid. Also indicated in each case are the percentage each state represents of the total Medicare expenditures. Total paid was $84.7 million, which does not include a carryover of approximately $18 million. Of the $84.7 million, $39.6 million went to hospitals and $45.1 million to physicians. California had by far the biggest total — 158,440 claims, $6.6 million paid to hospitals, $7.5 to physicians. Other states having physician payments of over $1 million were Florida, $2, Georgia, $1.5, Louisiana, $1, Massachusetts, $1.2, New York, $1.4, North Carolina, $1.3, Ohio, $1.3, Pennsylvania, $1.3, South Carolina, $1, Texas, $3.9, Virginia, $1 and Washington $1. Administrative costs of about $2 million-paid by the U. S. — are not included in the totals.

Dr. Berry has sent copies of the list to all members of the senate and house armed services and appropriations committees and follow-

ing the November election, will send copies to all members of the new congress. On Oct. 1 Medicare was to initiate restrictions designed to cut this fiscal year's payments to private hospitals and physicians to $70.2 million — in contrast to last fiscal year's $84.7 million, plus the $18 million carryover.

PHS REPORTS RADIOACTIVITY IN MILK CONTINUES WITHIN LIMITS

Public health service reports that its latest tests for the presence of radioactivity in milk from nine locations in the U. S. have shown amounts well within the permissible levels recommended by the national committee on radiation protection and measurement. The reports covers the May-June period and brings up to date findings started by PHS in the spring of 1957.

Composite milk samples collected through the co-operation of state and municipal health agencies, state agriculture departments and the dairy industry were analyzed by PHS to measure amounts of specific radioisotopes, including strontium-90. During June and July, the network was expanded from five to nine stations, bringing in Atlanta, Ga.; Austin, Tex.; Fargo, N. D., and Chicago, Ill. Based on a permissible limit of 80 micromicrocuries per liter for strontium-90, May samples ranged from 3.3 to 10 micromicrocuries; June samples, 2.2 to 15.6, July, 3.3 to 18.7.

NEW DEVICE 'READS' FOR BLIND

Veterans' administration reports it has developed a device that will permit blind persons to "read" from ordinary books and magazines. The instrument, about the size and shape of a portable radio, focuses a light beam on the printing, which produces a pattern of musical chords. The blind person is trained to interpret these sounds as letters and words. VA says a reading speed of between 15 and 30 words per minute is possible. Only five models have been built, and quantity production will be delayed until the device has been further developed. The major advantage of this machine over Braille is that, being able to "read" normal print, the blind person can read business correspondence, carry on certain types of office work, and be less restricted in schooling.

AID TO EDUCATION PROGRAMS WILL BE UNDER WAY IN SHORT TIME

The department of health, education, and welfare and its office of education are hurrying the establishment of a number of programs for aid to education and expect to have some of them in operation by the end of the year. All will be under way before start of the 1959-60 school year. The objectives are to improve teaching facilities and standards for science, mathematics and foreign languages, to identify more promising students in these fields at an early age, and to keep the students in school and on the proper courses. While medicine is not singled out for special treament, pre-med and medical students generally are eligible for loans. Also strengthening of primary and secondary school science courses and improvement in pupil guidance should identify more prospective medical students.

There still is some question, an office of education official said, whether medical schools that are not a part of a larger general education institution are eligible for student loans. A decision on this is expected shortly.

Four phases of the program will have direct bearing on medical education: Loans to students, to be handled by the institutions and for which the institutions must put up 10 per cent; grants to states to help public insitutions buy laboratory and other special science equipment and loans to private, nonprofit schools for the same purpose; 5,500 scholarships in four years to develop college teachers; and grants to states to improve guidance and counseling in primary and secondary schools.

LEGION FAVORS MINIMUM OF 125,000 BEDS FOR VA HOSPITALS

The American Legion wants congress next session to authorize a minimum of 125,000 beds in the veterans administration hospital system. This already has been proposed in a bill introduced late in the last session by Chairman Olin Teague of the house veterans' affairs committee. The bill also would write into law the 10-P-10 form which veterans who claim they are unable to pay for care must sign. On this latter issue, the legion took no stand at its recent national convention. The legion also was critical of budget bureau control over VA medical care spending plans and advocated that a 10-year-old bureau directive which established administrative control over the VA department of medicine and surgery be modified.

PROPOSED BAN ON AIRMAILING OF ETIOLOGIC AGENTS DROPPED

In the face of a volume of protests from medi-

cal societies, U. S. Public Health Service, the pharmaceutical industry and many other groups, the post office department has abandoned its plan to ban airmail shipment of etiological disease agents. It was learned that since the question came into the open, the department has received a flood of protests from state medical societies, state departments of health and many other associations and individuals. One post office official said the department had heard from "about every medical society."

The airlines, half of whom had embargoed air freight shipment of the agents, had asked that the federal government step in and forbid use of air mail as well. The lines argued that presence of the etiological agents constituted a danger to plane passengers and crews. Opponents of the ban, on the other hand, claimed that what danger existed could be adequately brought under control by proper packaging. The major factor in the post office department's change of policy, it is understood, is drafting by U. S. Public Health Service of new packaging requirements.

Dr. F. J. L. Blasingame, executive vice president of the AMA, informed the department that etiologic agents, while an important part of medical research and the physician's armentarium, are of no value if they are not available when needed.

Dr. LeRoy Burney, PHS surgeon general, wrote a strong protest in which he declared that loss of access to air shipment would produce "a disastrous effect upon current methods of disease control, medical research and even national defense against bacteriological warfare."

The Civil Aeronautics Board had told the post office that it would be up to the latter to police its own regulations under the proposed rule.

APPEALS FOR FEDERAL DISABILITY PAYMENTS ON INCREASE

The social security administration reports a sharp rise in volume of appeals from applicants denied social security benefits, mostly under the disability section enacted two years ago. Under this provision, a person determined permanently and totally disabled may start drawing at age 50 the social security payments to which he otherwise would be entitled at age 65.

To take care of the increased workload, the SSA staff of referees has been increased fourfold in two years. A still larger increase in appeals is expected after next Jan. 1 because of a new law that makes dependents of disabled workers eligible for payments, which they were not under the earlier law. An important cause of the increased appeals, according to Acting Social Security Commissioner William Mitchell, is a misunderstanding of the law on the part of applicants. Many of them believe that if their impairments keep them from their usual jobs, they are entitled to benefits. Explains Mr. Mitchell:

"The main test . . . is not what kind of work a disabled person can do but whether he can do a substantial amount of work of any kind. . . . Where a person's disability is not sufficiently severe to meet the explicit requirements of the social security law, the claim must be disallowed."

FLEMMING CITES PHS-FDA CONTRIBUTIONS TO RADIOLOGICAL HEALTH

HEW Secretary Flemming, in another of his news conferences, took occasion to note that some states have begun to develop trained staff, modern facilities and various programs in radiological health. "I believe other states and communities will soon want to give increased attention, emphasis and support to radiological health programs," he said. He then cited some PHS and food and drug administration work:

Forty-three stations have been set up in the states and territories for measurement of radioactivity, 45 stations for testing water and nine for milk sampling. Through NIH grants, about 100 research projects totalling over $1.75 million are being pursued in radiology and radiation. FDA is collecting food samples packed back to 1945, the year of the first nuclear test, in order to gather data on changes in radioactivity in foods. A number of radioactive drugs for diagnostic and treatment purposes have been cleared for safety under the new drugs provision of the food and drug act.

The secretary was questioned on use of X-rays in physicians' offices and the possibility of registration of such equipment for patients. PHS, Mr. Flemming said, is working with the national committee on radiation protection on possible accidents in this field. He promised a further statement at his next press conference.

LEGISLATIVE BOXSCORE, 85TH CONGRESS, SECOND SESSION

The 85th congress wrote an impressive number of health measures, the more important ones being listed in this boxscore. It failed to act on some bills, and in all likelihood, they will be introduced anew in the 86th congress convening next Jan. 7.

Subject	*Bill No.*	*House*	*Senate*
Public works loans	S. 3497	Voted Down Aug. 1	Passed April 16
Civilian pay (VA doctors)	S. 734	Public Law 85-462, June 20	
Military pay	HR 11470	Public Law 85-422, May 20	
Public health school grants	HR 11414	Public Law 85-544, July 22	
HEW appropriations	HR 11645	Public Law 85-580, Aug. 1	
Union health plans	S. 2888	Public Law 85-836, Aug. 28	
Social security	HR 13549*	Public Law 85-840, Aug. 28	
Medical School aid	HR 6874	Hearings held	
	S. 1917		In committee
Research facilities	HR 12876	Public Law 85-777, Aug. 27	
Chemical additives	HR 13254	Awaiting presidential signature	
Jenkins-Keogh taxes	HR 10	Passed July 28	
	S. 3194		In committee
Hill-Burton extension	HR 12628	Public Law 85-664, Aug. 14	
Hill-Burton loans	HR 12694	Public Law 85-589, Aug. 1	
Federal aviation agency	S. 3880	Public Law 85-726, Aug. 23	
Civil defense aid	HR 7576	Public Law 85-606, Aug. 8	
Defense reorganization	HR 12541	Public Law 85-599, Aug. 6	
Medicare appropriations	HR 12738	Public Law 85-724, Aug. 22	
Nursing home loans	S. 4035	Voted Down Aug. 18	Passed July 11
	HR 13776	Pending	
Presumption of service	HR 413	Passed July 7	Postponed
connection	HR 1143	Passed July 21	
VA hospitalization	HR 10028	Reported July 30	
Aging conference	HR 9822	Signed Sept. 2, awaiting PL No.	

No Action: *Medical care for aged (Forand's HR 9467); grants and scholarships for nursing (HR 306); national compulsory health insurance (HR 3764); health insurance pooling (HR 6506 and HR 6507); rehabilitation (HR 10608 and S. 3551).

BOOK REVIEWS

PEDIATRIC INDEX
by **Edwin Patton**, M.D. 639 pages. (1958) Mosby. $13.50.

A section of 300 pages presents symptoms and lists possible etiologies. An equally large section describes the salient features of these diagnoses. A short section on tests, techniques, medications, and poisons is appended. Six years spent in compilation have led to a useful diagnostic aid.

Stacey's Medical Books, San Francisco, Calif.

ALCOHOLISM
by **Arnold Z. Pfeffer**, M.D. 98 pages. (1958) Grune & Stratton. $4.50.

A petite but potent volume giving a nice distillation of modern thinking about the problem of alcoholism. The ABCs of alcoholism are presented in a pedantic but nondogmatic way. Written especially for industrial physicians but of interest to industrious physicians in general.

Stacey's Medical Books, San Francisco, Calif.

ESSENTIALS OF GYNECOLOGY
by **E. Stewart Taylor**, M.D. 502 pages. Illustrated. (1958) Lea & Febiger. $12.

Here is good perspective, neither too short nor too long. The materials included have been carefully selected in order to correlate the physiology, anatomy, and pathology of gynecology with clinical practice. A chapter on the preventive medicine aspects of gynecology has been included. The usual operative techniques used in gynecology, such as total abdominal hysterectomy, radical abdominal hysterectomy, anterior colporrhaphy, posterior colporrhaphy, fistula repair, vaginal hysterectomy, and others, are discussed in detail, and illustrations are included to help the student visualize the principles and objectives of the most frequently used gynecologic operations. The author is from the University of Colorado.

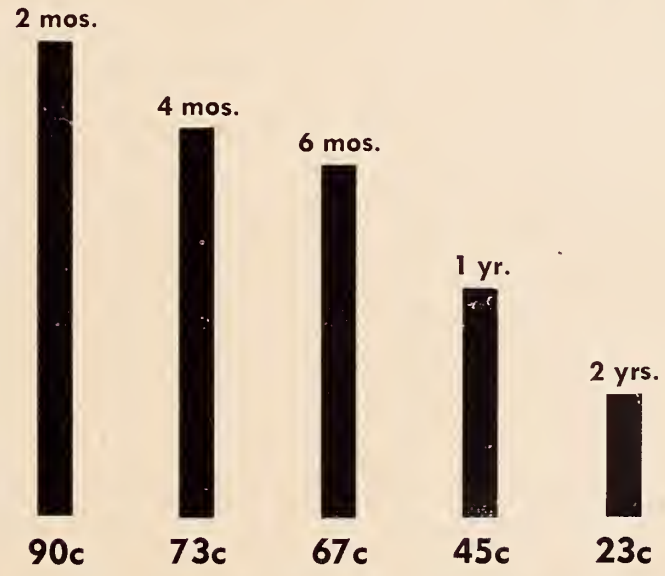
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PROGRESS REPORT FROM THE ARIZONA POISONING CONTROL INFORMATION CENTER AT THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY

TOXICITY OF MATCHES

THE ARIZONA Poisoning Control Information Center receives occasional inquiries concerning the potential toxicity of matches, and it was thought that such information should be brought to the attention of the Arizona Poisoning Control Treatment Centers.

Since present-day varieties of matches do not contain white or yellow phosphorus, incidents of serious poisoning due to accidental ingestion of matches are most unusual. The majority of cases of match poisoning involve children who lick or swallow match heads. The principal toxic components of the heads should be considered in treating such cases. In the head of book matches or the "safety" (strike-on-box) match, the chief ingredient is potassium chlorate. The toxic dose of this agent is approximately 5 gms., although a dose of 1 gm. has been reported to be lethal in a child. Larger doses (15 to 45 gms.) may produce vomiting, diarrhea, abdominal pain, collapse and death from renal failure.* The heads of 20 matches contain approximately 0.2-0.3 gm. of potassium chlorate which is about 1/20 of the usual toxic dose. In addition to this chemical agent, the "strike anywhere" (kitchen) match head contains phosphorus sesquisulifide, a compound which is relatively non-toxic due to its insolubility property.

The chemical constituents of the striking surface on the match box, which is less frequently ingested, include red phosphorus and at times antimony sulfide. In contrast to white or yellow phosphorus, red phosphorus is relatively non-absorbable and non-toxic, hence no antidotal measures are needed. Although usually not the case, if impure red phosphorus has been employed in the manufacturing process, traces of the toxic white phosphorus may be present. A garlicky odor of the breath or excreta would be indicative of the ingestion of the latter and treatment should be directed toward this compound.* It should be emphasized that red phosphorus, whether contaminated or not with the white variety, is found only in the striking surface and not in the head of present-day matches. The other chemical component in the striking surface, antimony trisulfide, is insoluble, therefore relatively non-toxic when swallowed. Other ingredients found in matches, such as glue, cornstarch, paraffin wax, wood rosin, and coloring dyes offer no problem with respect to acute toxicity.

*The treatment of poisoning from chlorates and white or yellow phosphorus as recommended by the Arizona Poisoning Control Information Center's Advisory Committee can be found in the Poison Control Card File provided for each of the 18 Poisoning Control Treatment Centers.

New Dosage Form of Atropine Sulfate for Injection

It is well known that relatively large amounts of atropine are needed to counteract the toxic effects associated with poisoning from organic phosphate insecticides. Therefore, it would be desirable to have a stronger parenteral dosage form of atropine sulfate than those customarily used when atropine is employed in medicine. Although not commercially available, the Eli Lilly and Company has made available for use in the Arizona Poisoning Control Treatment Centers ampuls containing atropine sulfate, 1/50 gr. per cc.

Dr. Frederick Beckert Appointed to Poisoning Control Committee

Frederick Beckert, M.D., anesthesiologist, of the Lois Grunow Memorial Clinic in Phoenix, has been appointed to the Arizona Medical Association Poisoning Control Committee.

Arizona Medical Association Poisoning Control Committee Meeting

A business meeting of the Arizona Medical Association Poisoning Control Committee to review the progress of the Arizona Poisoning Control Network during the past year and to discuss future plans was held at the Arizona Poisoning Control Information Center at the University of Arizona College of Pharmacy on Sept. 5, 1958. Committee members attending were Maurice Rosenthal, M.D., Frederick Beckert, M.D., both of Phoenix, and Virginia Cobb, M.D. (chairman), Willis R. Brewer, Ph.D., and Albert L. Picchioni, Ph.D., all of Tucson.

STATISTICS OF 65 POISONING CASES IN ARIZONA REPORTED SINCE AUG. 1, 1958

PROGRESS REPORT

Age	*Per cent*	*Number*
Under five years	67.7	44
Six to 15	7.7	5
16 to 30	10.7	7
30 to 45	7.7	5
Over 45	6.1	4
Nature of incident:		
Accidental	84.6	55
Intentional	15.4	10
Outcome:		
Recovery	100	65
Fatal	0.0	0
Time of day:		
Between 6 a.m. & noon	32.3	21
Noon to 6 p.m.	35.4	23
6 p.m. to midnight	27.7	18
Midnight to 6 a.m.	4.6	3
Causative agents:		
Aspirin preparations	26.2	17
Sedatives (barbiturates, meprobamate (Equanil), meperidine (Demerol)	15.4	10
Other medication (Amesec, Pathilon, thyroid, pyrilamine, Regimine tablets)	10.8	7
Solvents (turpentine, kerosene, lighter fluid, paint thinner, gasoline, model airplane fuel	15.4	10
Insecticides (Real Kill bug spray, malathion, Black Flag insect spray)	6.1	4
Food poisoning	6.1	4
Miscellaneous (marking ink, matches, graphite, Lysol, Bactine, lye, mothballs, perfume)	20.0	13

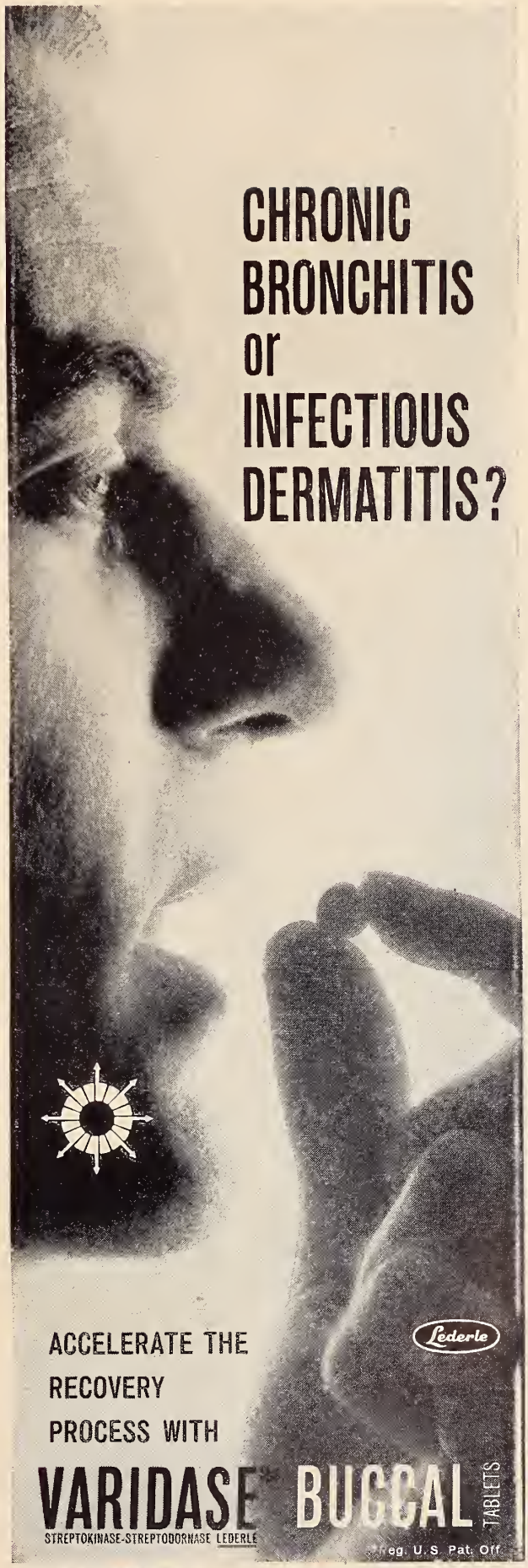
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REPORT TO ARIZONA DIVISION, AMERICAN CANCER SOCIETY, ON RESEARCH PROJECT SEPT. 19, 1958

Several years ago, by means of a generous grant from the Armour Laboratories, I found that crude extracts from certain plants exhibited an inhibitive effect upon certain bacterial cells. With the hope that some of these plants, as well as others, might have an adverse effect upon the development of tumor cells, the present work was undertaken last winter.

The budget of the grant received from this division is available in the local office, ACS. The money is being spent to employ personnel, for plant-collection expenses, consumable laboratory supplies, and several pieces of equipment; a deep freeze and lyophilizer were greatly needed and promptly purchased with the first funds that became available. At present we are seeking a suitable vacuum oven. The university bears part of the indirect cost, permits the use of much apparatus and laboratory facilities. It is fortunate to have this research under way in the College of Pharmacy because there are other projects with which we share personnel, some equipment and plants that they, too, are collecting. The pharmacologists and pharmacognosists are actively working on the project and always available for consultation, and in this connection I want especially to name Dean Brewer. The identification of all plants is checked by Dr. Mason, taxonomist, and a mounted specimen of each plant is kept in the university herbarium, which is a national depository.

To speed this research and take as much advantage as possible of the plant growing season for collections, Drs. Meador and Rush, U.S.PHS, National Cancer Institute, suggested we prepare the extracts and let the cancer chemotherapy national screening center do the initial screening, using three tumor systems: scarcoma (S-180), adenocarcinoma (Ca-755), and leukemia (L-1210). These tumors were selected because all compounds known to be of clinical value are effective against at least one of these mouse tumors. Thus, all three mouse tumors are needed to pick up all of the known positive compounds. This is our present program.

For the two solid tumors, inhibition is judged by the ratio of the mean tumor weight of test animals to the mean tumor weight of control animals. With the ascites tumor, inhibition is indicated by a significantly increased survival of test animals compared to controls. Toxicity is also sometimes included in reports to us. Results are given with the words: Proceed, Reject, and Incomplete.

As of Sept. 1, 1958, we have sent 305 extracts to the CCNSC. We have received reports of 176 of these. All extracts are first tested in mice implanted with the sarcoma.

Of these 176 extracts with sarcoma:

Proceed	17 per cent
Incomplete	13 per cent
Reject	70 per cent

Of 11 extracts used with the carcinoma:

Proceed	64 per cent
Reject	36 per cent

Of 24 extracts used with leukemia:

Proceed	33⅓ per cent
Reject	66⅔ per cent

MARY E. CALDWELL

ARIZONA DIVISION OF AMERICAN CANCER SOCIETY WINS AWARD

THE ARIZONA division of the American Cancer Society was recently awarded a Crusade Citation by the board of directors of the American Cancer Society at its meeting, June 20, 1958, in Denver. The citation was made for the division's overall progress in cancer control. The service programs, education programs and fund raising were particularly singled out for remarkable growth in the past year. The continued promotion of the outstanding professional educational event, the cancer seminar, which attracted physicians' attention over the nation and many physicians' attendance throughout the West, was also a notable achievement mentioned in the award.

The Arizona division of the American Cancer Society is to be congratulated for its winning of this award and for its close co-operation with Arizona physicians in its educational and service programs.

CANCER EDUCATIONAL PAMPHLET AVAILABLE FOR PHYSICIANS' PATIENTS

AN EXCELLENT pamphlet entitled "The Story of Cancer" has been prepared by Mrs. Esther Johnston, for use in the Cancer education program throughout Arizona high schools.

It gives an excellent basic viewpoint of cancer and its terms, in layman's language. This pamphlet will be available to physicians for distribution to their patients. They may be obtained through the local division of the American Cancer Society.

POTENTIAL ANTI-LEUKEMIA DRUGS

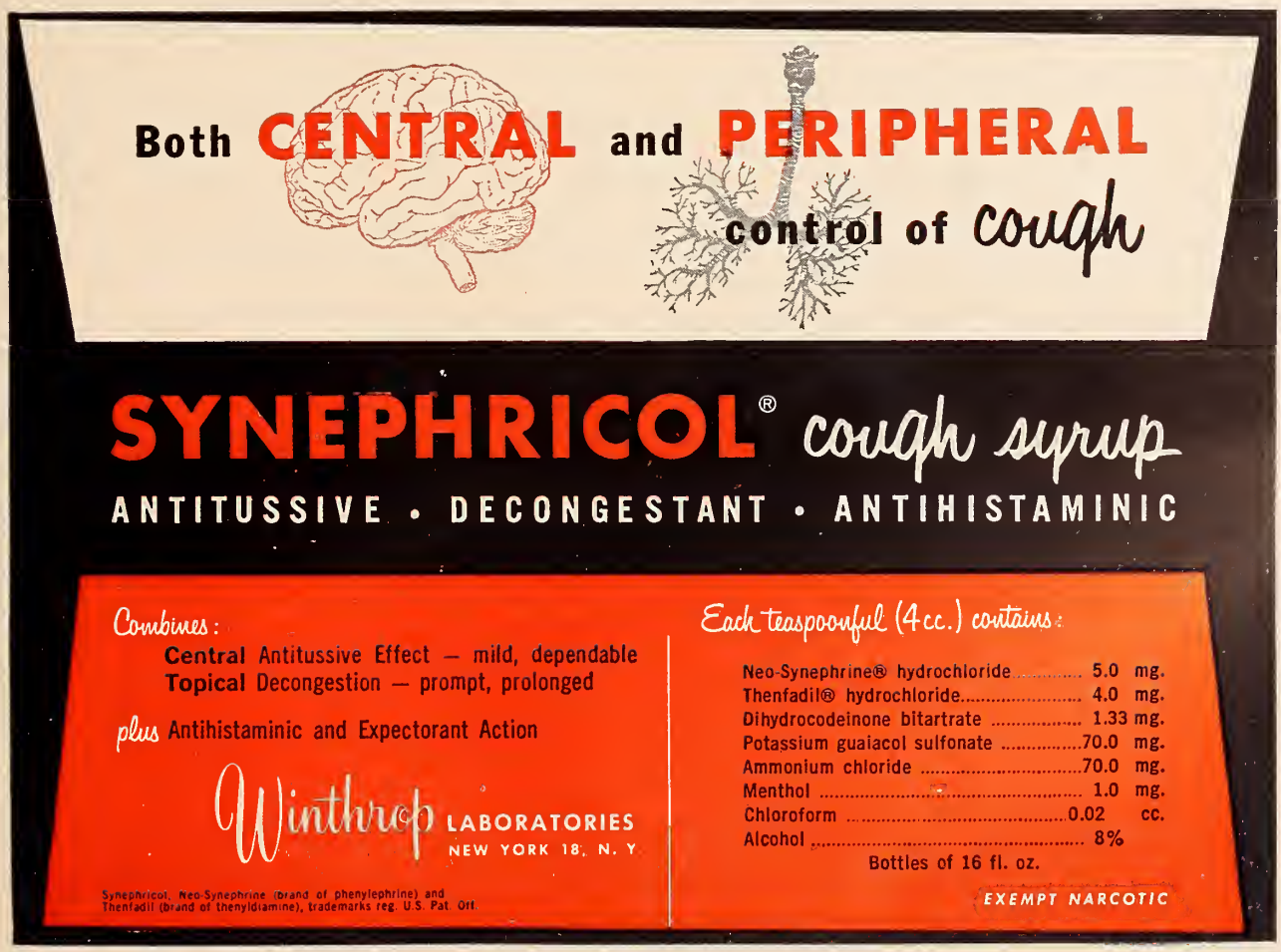
TWO potential anti-leukemia drugs, reported to attack several forms of cancer in animals but to do little harm to the animals' normal tissues, were described at the American Chemical Society's 134th national meeting.

Preliminary reports of clinical trials indicate that both compounds have at least temporary effects on some malignant diseases — primarily those of the blood-making organs in adults. The chemical properties and biological action of the new agents were reported in three technical papers presented before the society's division of medicinal chemistry by chemists Dr. Harold G. Petering, Dr. John S. Evans, and Robert B. Birkenmeyer.

The first compound, identified as U-8344, was described by Dr. Petering, a biochemist, as having "striking activity in regressing or inhibiting a variety of established leukemias and cancers in rats and mice, without undue toxic action against normal tissue in the same animals." Chemically, it is called 5-Bis(2'-chloroethyl)aminouracil, and it is related to ribonucleic acid, an essential part of all living cells.

Dr. Evans, also a biochemist, reported the second material, U-7824, as "highly active in inhibiting transplantable mouse and rat tumors, with minimal toxic effects against normal tissue." This compound is called N, N-p-bis-(2-iodoethyl)amino benzylphosphonate.

U-8344 and U-7824 have been chemically "tailored" to strip them of side effects. Both materials have been found to be active when taken by mouth and can be tolerated by human beings when administered as tablets.



DR. BACON REPORTS ON TEST TO KILL FREE CANCER CELLS

A PRELIMINARY report on the use of a chlorine derivative to kill free cancer cells in an effort to reduce the incidence of cancer recurrence after colon surgery was made by Dr. Harry E. Bacon.

Speaking before the Western regional meeting of the United States section, International College of Surgeons, Dr. Bacon said tests on the use of a new chemical known as Clorpactin XCB have been under way since last March.

He pointed out that various reports show a local cancer recurrence of from 14 to 26 per cent, and a resulting mortality of 15 per cent after an operation for cancer of the colon and rectum. Available reports also indicate the presence of free cancer cells in the bowel in about 32 per cent of the cases studied, he said. There also is danger of seepage into the abdominal cavity.

In an effort to overcome this problem, he said Clorpactin XCB is being used as a lavage.

"XCB has been shown to possess a definite cancericidal action against free viable cells, singly or in clusters," he reported. "This action occurs within three minutes after contact of the solution and cells.

"The mode of action is by the liberation of hypochlorous acid in both liquid and gaseous forms, the end result being oxychlorination of the individual cells. Tumor fragments, however, are not considered as prime targets.

"Fecal matter in the lumen tends to offset this specific action to a degree that the bowel must be quite empty to obtain maximal action. Repeatedly, we have employed as much as 1,000 cc. in the peritoneal cavity and at no time have harmful effects on normal tissue been observed.

"While the exposed tissue may turn a dark brown color, it does not appear to interfere with normal tissue growth or satisfactory wound healing."

Dr. Bacon explained that the chemical was customarily used in a 0.5 per cent solution, and on the morning of surgery administered as a retention enema to about the level of the lesion. Upon opening the abdomen, the growth is immediately covered with a thick gauze pack saturated with the Clorpactin solution and tied above and below the tumor. Solution also is injected into the bowel. Throughout the operation, surgical gloves and instruments are dipped in basins containing the chemical.

At the end of the operation, the peritoneal cavity is thoroughly washed with the solution, as is the wound after closure of the peritoneum.

"A sufficient period has not elapsed wherein a statistical report can be made," Dr. Bacon reported. "Smears taken for viable cells and chemical tissue reaction will be evaluated by joint co-operation with the department of pathlogy.

"It may be mentioned that we have encountered no untoward effects. We have been impressed with the investigations recognizing the potential of XCB. If we accept this premise, we may anticipate a lowered rate of recurrence."

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HOSPITAL NEEDS OF AGED

THE HOUSE of delegates of the American Hospital Association, meeting in Chicago, adopted a statement of policy with respect to meeting the hospital needs of the aged. The statement, which supersedes all previous actions taken by the association, follows:

1. The American Hospital Association is convinced that retired aged persons face a pressing problem in financing their hospital care.

2. It believes that federal legislation will be necessary to solve the problem satisfactorily. It has, however, serious misgivings with respect to the use of compulsory health insurance for financing hospital care even for the retired aged.

3. It believes that all possible solutions must be vigorously explored, including methods by which the dangers inherent in the social security approach can be avoided.

4. It believes that every realistic effort should be made to meet the hospital needs of the retired aged principally through mechanisms utilizing existing systems of voluntary prepayment. However, it is conceivable that the use of social security to provide the mechanisms to assist in the solution of the problem of financing these needs may be necessary ultimately.

5. It believes that any legislation developed to provide for government participation to meet the hospital needs of the retired aged should be so devised as to strengthen the voluntary prepayment systems, and should conform to the following principles:

a. Legislation designed to provide for the hospital needs of the retired aged should provide essential hospital services and should exclude custodial care provided for nonmedical reasons.

b. Government participation should be restricted to persons over 65 who are not regularly and substantially employed. The voluntary prepayment system provides a satisfactory mechanism for the coverage of other persons, regardless of age.

c. Any program in which the federal government participates to meet the hospital needs of the nonindigent aged should emphasize individual responsibility and make the application of a means test unnecessary for obtaining benefits.

d. Such a program should be based on the service benefit principle and should provide benefits sufficiently comprehensive to remove the major economic barriers to hospital care for the retired aged.

e. Such a program should make benefits available through nonprofit prepayment plans.

f. Hospitals should be paid fully for the cost of care rendered.

g. Such a program should not provide services in facilities operated by the federal government.

h. Such a program should provide reasonable criteria to determine the eligibility of hospitals to participate, but the federal government should be precluded from interfering in the administration and operation of hospitals providing the services.

i. Such a program should maintain the free choice of doctor and hospital by the recipient.

j. Such a program should permit and encourage continuous adaptation to new knowledge in the provision of services.

INVITE LABOR TO THIRD PARTY CONFERENCES

THE COUNCIL on medical service has issued invitations to 10 medical directors of medical care programs, sponsored directly or indirectly by labor unions, to meet with the AMA for the purpose of developing "general principles and policies which may be applied to the relationship between third parties and members of the medical profession."

The council's letter said in part: "These discussions will be of an informal but informative nature. They will be conducted in an atmosphere where a friendly exchange of ideas can take place. The meetings will, it is hoped, initiate discussions along lines of mutual interest which can be pursued at such subsequent intervals as may be considered necessary."

The proposed meeting would be the first of a series with third party groups.

MODERN TRENDS IN PEDIATRICS
by A. Holzel and J. P. M. Tizard. Second Series. 385 pages. Illustrated. (1958) Hoeber. $14.

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Stacey's Medical Books, San Francisco, Calif.

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Any of the periodicals might be useful to the medical profession somewhere in the state, or to its hospitals and laboratories. All are available. The same offer is made as to a large number of technical reports from many of the country's and some foreign research centers, laboratories and universities. All, save those under military classification, are available.

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FLAGSTAFF — Pop. 17,500 — Largest city in the north central Arizona trading area. Excellent opportunity for an EENT doctor. Contact K. O. Hanson, M.D., Secretary, Coconino County Medical Society, Five North Leroux, Flagstaff, Ariz.

GILA BEND — Pop. 2,500 — 80 miles west of Phoenix — Nearest town to the Painted Rock Dam Project — Good opportunity for general practitioner. Cattle, cotton, and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HAYDEN — Pop. 3,000/4,000. Industrial practice — approximately 200 employes and dependents. Only part-time required. Coverage; Metropolitan Surgical Plan. Physician may engage in private practice also. Small company-owned clinical building (new) available for use, with X-ray equipment, diathermy equipment, etc. Full-time nurse available to assist; clerical work to be handled by company. Company housing facilities available for physician — small rental. Contact: American Smelting & Refining Company, Mr. Ben Roberts, department manager, P. O. Box 1111, El Paso, Texas.

HOLBROOK — Population above 7,000. Located in the heart of the northeastern pine country of Arizona on U. S. Rt. 66. Need services of GP. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

MIAMI — Opportunity for GP — Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community near New Mexico-Arizona border. Pop. 10,000. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

SAFFORD — Graham County Health Department in need of an M.D. In the heart of the cattle and farming areas of southeastern Arizona. Population, 10,500; elevation 2,920 feet. Schools, churches and social facilities are numerous. Contact Mr. Verl Lines, chairman, Graham County Board of Supervisors, Safford, or Frederick W. Knight, M.D.; 618 Central Ave., Safford.

ST. JOHNS — Seriously need a doctor of medicine, preferably a general practitioner, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. Peter Falbo, President, Chamber of Commerce, 9112 West Van Buren St., Tolleson, Ariz.

TUCSON — The VA hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., Director, Professional Service, VA Hospital, Tucson, Ariz.

TUCSON — Young man interested in the practice of internal medicine for junior associateship, Southwestern Clinic & Research Institute, Inc. Excellent opportunity to achieve qualification in the specialty of internal medicine. Con-

tact Charles A. L. Stephens Jr., M.D., 2430 East Sixth St., Tucson, Ariz.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Ariz.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Ariz.

WANTED RETIRED PHYSICIAN

A retired physician with an Arizona License who would be available to cover M.D.'s practice for the month of January, 1959.

Contact:

Leo Schnur, M. D.
Box 274 — Sedona, Arizona

LOCATION INQUIRIES

BAILEY, ALBERT STANLEY JR., M.D., P. O. Box 1381, Westhampton Beach, L. I., N. Y.; *GP;* 1955 graduate of University of Oklahoma; interned at Highland Park General Hospital, Highland Park, Mich.; presently on active duty with the United States Air Force. Holds a license in the State of Oklahoma. Is 28 years of age and married. Is interested in general type practice. Will be available May 1959.

KUHN, PAUL L., M.D., 1275 South Grape St., Denver 22, Colo. *Pd;* 1954 graduate of University of Colorado Medical School; interned at St. Anthony Hospital in Denver; served residency at the University of Colorado School of Medicine in pediatrics; has a Colorado license; fulfilled military obligations; interested in group or associate practice. Age 30; married; available now.

PARKER, PHILIP J., M.D., Staples, Minn.: *GP-S;* 1942 graduate of Jefferson Medical College; interned at Holy Name Hospital, Teaneck, N. J.; served residency at Johnston-Willis Hospital, Richmond, and St. Joseph Hospital, Lexington, Ky.; licensed in New Jersey, Ohio, Minnesota and Texas; served in U. S. Naval Reserve for three years; interested in associate practice. Would combine surgery and general practice. Age 42; single; available Nov. 1, 1958.

SANTERE, C., M.D., 1526 Third Street, New Orleans, La.; *S;* 1952 graduate of Tulane Medical School, New Orleans; interned at Valley Forge Army Hospital, Phoenixville, Pa.; also served residency in VA hospital in Buffalo, N. Y.; fulfilled military obligations; holds national boards and license in Louisiana; interested in associate or group practice. Age 32; married; available now.

SMALL, ROBERT G., M.D., 56 Piper Road, Hamden 14, Conn.: *S;* 1951 graduate of Yale; interned at Strong Memorial Hospital, Rochester, N. Y.; also served residency there and VA hospital, West Haven, Conn.; licensed in New York and Conneticut: fulfilled military obligations; interested in assistant or associate practice; possibly industrial. Age 31; married; available Jan. 1, 1959.

TARR, JOHN R., M.D., 122 Sixth Ave., Ford City, Pa.: *GP;* 1954 graduate of University of Pittsburgh; interned at St. Francis Hospital, Wichita, Kan.; licensed in Ohio, Kansas, and Missouri; fulfilled his military obligation; interested in solo practice. Age 34; married; available January 1959.

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BOOK REVIEWS

FUNDAMENTALS IN CARDIOLOGY
by **John B. Wild,** M.D. 83 pages. Illustrated. (1958) Thomas. $4.50.

Current knowledge of the physiological principles behind cardiac mechanisms enables the student to comprehend more fully both the normal and the pathological signs of valvular and septal defects. The author's successful teaching method makes use of multi-phased graphic designs to clarify diagnostic points. The author is an assistant professor, Internal Medicine and the Cardiovascular Laboratory, University of Iowa.

Stacey's Medical Books, San Francisco, Calif.

Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U. S. Pat. Off.

Future Meetings

OBSTETRICS AND GYNECOLOGY

THIS program will present a day of obstetrics, a day of gynecology and a half-day demonstration of techniques. On the first two days, the morning sessions will be devoted to basic concepts, and the afternoons to clinical considerations. The half-day session will be devoted to discussion and demonstration of common techniques employed in obstetrics and gynecology. The course is planned for general practitioners, but is open to anyone interested in this field of medicine. Ample periods of time will be available for questions and informal discussion.

Course Chairman: Daniel G. Morton, M.D.

Meeting Place: Thursday and Friday, Westwood Community Methodist Church, 10497 Wilshire Blvd. (corner Warner Ave.). Ample parking is available Saturday, University of California Medical Center at Los Angeles. *Room to be announced.*

Dates: Nov. 20, 21 and 22, 1958.

Times: Thursday, 9 a.m.-12:15 p.m. and 2-5:30 p.m.; Friday, 9 a.m.-12:15 p.m. and 2-6 p.m.; Saturday, 8:30 a.m.-1 p.m.

Fee: $50.

Information: Requests for information or applications concerning these courses should be made to:

Thomas H. Sternberg, M.D.,
Assistant Dean,
Postgraduate Medical Education,
University of California, Medical Center,
Los Angeles 24, Calif.,
or telephone: GRanite 8-9711 or
BRadshaw 2-9811, extension 7114.

Stanley J. Gross, M.D., Clinical Instructor in Obstetrics and Gynecology.*

Donald L. Hutchinson, M.D., Assistant Professor of Obstetrics and Gynecology.*

Earl Hymann, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.*

John V. Kelly, M.D., Instructor in Obstetrics and Gynecology.*

Sol D. Larks, M.D., Assistant Professor of Biophysics.*

J. G. Moore, M.D., Associate Professor of Obstetrics and Gynecology.*

Daniel G. Morton, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology.*

Leon Shulman, M.D., Los Angeles.

David H. Solomon, M.D., Assistant Professor of Medicine.*

Blake H. Watson, M.D., Associate Clinical Professor of Obstetrics and Gynecology.*

Joseph L. Westover, M.D., Assistant Professor of Radiology.*

Louis J. Zeldis, M.D., Professor of Pathology.*

*University of California School of Medicine, Los Angeles.

These courses are open only to graduates of approved medical schools, with the consent of the course chairman.

University Extension reserves the right to cancel these courses, in which case all fees will be refunded.

CHEST DISEASE SYMPOSIUM

ON JAN. 9 and 10, 1959 the Trudeau Society of Los Angeles (Chest Disease Section of the Los Angeles County Medical Society), the Tuberculosis and Health Association of Los Angeles County, and the General Practice Section of the Los Angeles County Medical Association, will present a symposium on chest diseases. Accreditation for the meeting is being cleared with the American Academy of General Practice.

The course has been especially designed to meet the needs of the general practitioner who is now treating tuberculosis, the young physician who has had little training in tuberculosis, and others in general practice, internal medicine and pediatrics who are being confronted with chest disease problems. All phases and all diseases will be considered. There is to be a special session on the normal lung pattern in the chest x-ray film. There is also to be a special session on neoplasms and another on ventilatory problems.

The symposium will be presented by 28 physicians, each a specialist on his subject.

Physicians from outside the area are invited to attend. They will find this symposium has been planned to give practical help to their problems. A half hour question and answer period has been planned to close each half day session.

The symposium will be held at the Hotel Statler; the fee for the course is $15. The buffet dinner which will be sponsored by the Trudeau Society on Friday, Jan. 9 will be an additional $6. Further information and advance registra-

tion may be obtained by writing to Horace R. Getz, M.D., Medical Director, Hastings Foundation, 3800 North Lincoln Ave., Altadena, Calif.

Announcements will be mailed directly to chest disease and general practice section members.

7TH ANNUAL CANCER SEMINAR

Of the Arizona Division AMERICAN CANCER SOCIETY

January 22-24, 1959 — Paradise Inn — Phoenix, Arizona

THURSDAY, JANUARY 22

9:00 A.M. — OPENING SESSION
Invocation
Introductory Remarks
Edward H. Bregman, M.D.
Chairman, Seminar Committee

9:15-10:00 A.M. — ANEMIA OF MALIGNANT DISEASE
Speaker — Alfred Gellhorn, M.D.
Moderator — Alloys Tallakson, M.D.

10:00-11:15 A.M. — HODGKINS DISEASE, RELATION OF VIRUSES TO HODGKINS DISEASE
Speaker — Warren Bostick, M.D.
Moderator — W. A. Brewer, M.D.

11:15-12:30 P.M. — RECENT ADVANCES IN DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE CERVIX
Speakers — Howard Hunt, M.D., and Alexander Brunschwig, M.D.
Moderator — Darwin Neubauer, M.D.

12:30 LUNCH

2:30-4:30 P.M. — TUMORS OF CENTRAL NERVOUS SYSTEM
Speakers
James W. Kernohan, M.D.
Phillip Hodes, M.D.
Edwin B. Boldrey, M.D.
Moderator — John Eisenbeiss, M.D.

FRIDAY, JANUARY 23

9:00-10:00 A.M. — Rol Laughner Memorial Lecture: Treatment of Malignant Disease in the U.S.S.R.
Speaker
Alexander Brunschwig, M.D.
Moderator — Reed Schupe, M.D.

10:00-10:30 A.M. — A NEW METHOD FOR DIAGNOSIS OF SOLITARY LESIONS OF THE LUNG
Speaker — L. H. Garland, M.D.
Moderator — Robert Leonard, M.D.

10:30-12:00 A.M. — CARCINOMA OF THE LUNG
Speakers
Richard Overholt, M.D.
W. A. D. Anderson, M.D.
Moderator — D. W. Melick, M.D.

12:00 ANNUAL REPORT, AMERICAN CANCER SOCIETY
Kenneth Clark, M.D., Vice President for Medical Affairs, ASC
Moderator — Arthur J. Present, M.D.

2:00-4.30 — CLINICAL AND PATHOLOGICAL DIAGNOSTIC PROBLEMS
All Participants
Moderator — James D. Barger, M.D.

SATURDAY, JANUARY 24

9:00-10:00 A.M. — REVIEW OF CHEMOTHEAPEUTIC AGENTS
Speaker — Alfred Gellhorn, M.D.
Moderator — Thomas Bate, M.D.

10:00-12:00 A.M. — TUMORS OF THE STOMACH
Speakers
L. H. Garland, M.D.
Alexander Brunschwig, M.D.
W.A.D. Anderson, M.D.
Moderator — Paul Jarrett, M.D.

SAT. AFTERNOON — NURSES SEMINAR

For further information write: Edward H. Bregman, M.D., Chairman, Cancer Seminar Committee, American Cancer Society, 543 East McDowell Road, Phoenix, Arizona.

THE ARIZONA MEDICAL ASSOCIATION, INC.

68TH ANNUAL MEETING

Location and Date Changes

UNABLE to make satisfactory arrangements with Hotel Westward Ho, Phoenix, for the 68th annual meeting of the Arizona Medical Association, in accord with previous action of council, negotions were opened with the San Marcos Hotel, Chandler, the site of the last meeting. Accommodations were obtained there for the period April 28 through May 2, 1959, and council was polled by mail for approval or disapproval. Thirteen voted in favor of San Marcos, three voted in favor of an alternate late May period offered by Westward Ho, two failed to respond, and one voted for San Marcos, but at a later period in May. Council reaffirmed the majority decision and directed that negotiations be concluded accordingly.

Announcements

Doctor Melick announced the following doctors had accepted the association's invitation to participate in the forthcoming annual meeting:

John Z. Bowers, M.D., Dean, University of Wisconsin Medical School.

Haddon M. Carryer, M.D., Clinical Section, Mayo Clinic.

John W. Cline, M.D., Associate Clinical Professor of Surgery, Stanford University School of Medicine and past president of AMA.

Walter L. Hard, Ph.D., Dean, University of South Dakota School of Medicine.

Harold Dalton Jenkins, M.D., Assistant Professor of Medicine, University of Colorado Medical Center.

Marvin E. Johnson, M.D., Assistant Professor of Surgery, University of Colorado School of Medicine.

Henry H. Kessler, M.D., Ph.D., Medical Director, Kessler Institute for Rehabilitation.

Vernon W. Lippard, M.D., Dean, Yale University School of Medicine.

Roscoe L. Pullen, M.D., Dean, University of Missouri School of Medicine.

Thomas L. Royce, M.D., Clinical Assistant Professor in Ophthalmology, Baylor University School of Medicine.

Thomas B. Turner, M.D., Dean, Johns Hopkins University School of Medicine.

Fred Dow Fagg Jr., Ph.D., President, Western Interstate Commission for Higher Education.

Reuben G. Gustavson, President, Resources for the Future, Inc.

DALLAS SOUTHERN CLINICAL SOCIETY

Spring Clinical Conference
March 23, 24, 25, 1959
433 Medical Arts Building
Dallas, Texas

POSTGRADUATE CALENDAR 1958-1959

University of Colorado Medical Center
Denver, Colo.

Jan. 19-24, 1959:

General Practice Review *(Fifth Annual)*

March 16-21, 1959:

Medical Technology

May 14-16, 1959:

Neurology

May 21-22, 1959:

Colorado Intern-Resident Clinic *(Tenth Annual)*

June 15-19, 1959:

Internal Medicine *(American College of Physicians)*

June 22-27, 1959:

Clinical Hematology

July 6-8, 1959:

Obstetrics and Gynecology

July 6-9, 1959:

Ophthalmology *(Aspen, Colo.)*

July 16-18, 1959:

Dermatology for General Practitioners *(Fifth Annual)*

Aug. 10-15, 1959:

Western Cardiac Conference

Aug. 24-26, 1959:

The Prevention and Management of Athletic Injuries

Sept. 10-15, 1959:

Pediatrics *(Estes Park, Colo.)*

Oct. 1959:

Hematology
A Basic Review of Six Clinical Problems

NOTE: The above dates are subject to change. For further information and detailed programs, write to:

Office of Postgraduate Medical Education,
The University of Colorado Medical Center,
4200 E. Ninth Ave., Denver 20, Colo.

INTERNATIONAL COLLEGE OF SURGEONS

INTERNATIONAL College of Surgeons, 24th annual congress of United States and Canadian sections, Palmer House, Chicago, September 13-17, 1959. Write Dr. Ross T. McIntire, Executive Secretary, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Illinois.

CALENDAR OF MEETINGS

DATE	MEETINGS	PLACE
Nov.		
17-22	Radiological Society of North America	Chicago, Ill.
18-22	Pan American Dental Congress	Mexico City, Mexico
Dec.		
2-5	American Med. Ass'n. Clinical Meetings	Minneapolis, Minn.
Jan. 1959		
4-7	Southeastern Region Meeting International Coll. of Surgeons	Miami, Fla.
Feb.		
5-8	American Coll. of Radiology, Annual Meeting	Chicago, Ill.
March		
9-12	AMA 4-day Sectional Meeting	St. Louis, Mo.
16-20	National Health Council Annual Meeting	Chicago, Ill.
30 - Apr. 2	Southwestern Surg. Congress	Denver, Colo.
April		
6-8	American Radium Society	Homestead Hotel, Hot Springs, Va.
6-9	American Academy of General Practice	San Francisco, Calif.
9-12	American Ass'n. for Cancer Research Inc.	Haddon Hall, Atlantic City, N. J.
20-23	American Ass'n. Pathologists & Bacteriologists	Boston, Mass.
20-24	American College of Physicians	Conrad Hilton Hotel, Chicago, Ill.
28 - May 2	Arizona Medical Association	Chandler, Ariz.

BOOK REVIEWS

A MODERN PRACTICE OF OBSTETRICS

by D. M. Stern, FRCS, and C. W. F. Burnett, M.D. 2nd ed. 258 pages. Illustrated. (1958) Williams & Wilkins. $9.

The rapidity of the growth of science and technology makes the frequent revision of any textbook essential. In this new edition, discoveries and improvements made during the last few years in the practice of obstetrics have been incorporated. Parts of the text, including the whole chapter on antepartum hemorrhage, have been rewritten, new figures have been introduced and old ones have been redrawn; among the new subjects discussed are hypotensive drugs, pain during pregnancy, hypofibrinogenaemia and amniotic embolism.

Stacey's Medical Books, San Francisco, Calif.

PROGRESS IN ARTHRITIS

edited by John H. Talbott, M.D., and L. Maxwell Lockie, M.D. 456 pages. Illustrated. (1958) Grune & Stratton. $12.50.

Twenty-seven subjects within the general field of arthritis have been presented by well qualified authors. The general and specific literature of each phase has been thoroughly reviewed and summarized and the contributors have expressed their personal opinions. A large bibliography follows each article. This gives the doctor a quick insight into what is happening as a result of the countless millions of dollars and research hours that have been spent in the field of arthritis and connective tissue disorders.

Stacey's Medical Books, San Francisco, Calif.

Woman's Auxiliary

CIVIL DEFENSE PLANS FOR DISASTER

INTRODUCTION

ARE YOU aware that Arizona is rated Number Two as having the worst civil defense organization in the United States? Why? Because you and I have not helped organize and support it.

Most people assume the attitude that "if we ignore the problem, it won't affect us." A pity. Perhaps it is due to ignorance on the part of many. They do not realize, nor do they want to hear about the potentials that not only we possess, but our enemies as well, for waging war. It seems the larger and more destructive the weapons become, the greater the apathy and complacency.(1)

Inter-continental ballistic missiles are not a thing of the future. They are an actuality and can be launched on any target area in the world, delivering nuclear warheads. They may not hit the target for which they are intended. This means that any place, any object, could well be the recipient of such a weapon.

Even though we have strategic air fields in this state, these do not necessarily constitute an adversary's choice of a prime target area. Neither do they represent our own protection. All an enemy need do is destroy our resources. Without fuel, the planes cannot fly; without food and equipment, the military personnel cannot fight.

There are some who argue that the enemy would not attack the United States for fear of retaliation. A ruthless dictator does not bother to weigh the consequences when he is interested in world domination and power. Good examples of this type were Mussolini and Hitler, not to mention what Khrushchev might do were he forced into a firm decision on some important issue.(2)

Yes, it could happen here! As the result of one attack in the United States, it is estimated that we would have between 20 to 30 million casualties. These represent the conventional type of injuries; burns, lacerations, contusions and fractures. Add to these the concomitant radiation syndrome, which it is assumed will be more numerous, and you have a problem that is beyond all human comprehension. The loss of doctors and nurses will be greater than that of the general population, as they will be concentrated in the area of greatest destruction. Do we have trained ancillary personnel to assume the care of these medical responsibilities?

"I hope the first bomb hits me." This statement one hears at the mere mention of nuclear warfare. This defeatist attitude is too prevalent, but it is ambrosia to the enemy. Regardless of the type of disaster, even a nuclear attack, *there will be survivors!* It is on this basis that we must make our plans. Were there no survivors, we wouldn't have any problem.

Recently a man made this remark, "I pay my taxes, let the government worry about defending this country." This statement reminded this writer of the thousands of white crosses dotting the cemeteries of our war dead. These men paid taxes, too, and in addition, paid with their lives so that we might continue to enjoy our democratic way of life. Do we not owe something to them as well as the future generations?

The Problem

In the field of medicine, some doctors feel that since they handle truma in every day life, it is only a matter of putting this experience into practice on a larger scale to cope with mass casualties. The fallacy of such thinking is well documented by the National Research Council. They have sent teams to every disaster area in the United States to investigate the manner in which casualties were handled. The results were appalling.(2)

The Worcester, Mass., tornado is an excellent example. Even the doctors who had had combat training were ineffective in dealing with the situation, and a horrible fiasco resulted. Casualties were not sorted, wounds were closed without debridement, patients underwent surgery without prior treatment of shock. No first aid was given before casualties were rushed to the nearest hospital. Instruments were washed with tap water and handed from one patient to the next. The anxious relatives, and the curious, crowded into the hospitals inquiring of loved ones and friends. The police were overwhelmed and ineffective to control them.

Communications were intact, yet the hospitals were not notified of any disaster until the first

injured man walked in. They had adequate personnel, copious medical supplies and equipment, transportation and hospital facilities were available.(3) "This clearly demonstrates the increased morbidity and mortality that occurs without adherence to the principles of combat surgery, and the lack of a pre-planned organization for disaster."(2)

Disaster plans are mandatory for hospitals in order for them to be accredited. These are useless on paper or posted on bulletin boards. To be effective, they must be used! "Dry runs," simulated disasters with casualties are invaluable. Each individual of the hospital must be briefed as to his or her specific duties, including patients, professional personnel, scrub women, laundry workers, auxiliary members; in fact anyone who is connected with the institution.

Possible Solution

The Federal Civil Defense Administration has issued to the State of Arizona, five 200 bed emergency hospitals. There is one each in Flagstaff, Yuma, Tucson, Florence and Phoenix. Only one of these hospitals has been unpacked, equipment sorted, inventoried and partially set up. This is the one in Phoenix.

The 451st General Hospital, United States Army Reserve Unit, with the aid of labor union personnel and a few laymen, have accomplished this task. This equipment was stored for two years prior to being unpacked. As a result of this neglect, the X-ray film is ruined, drugs have deteriorated, rubber goods have rotted and the anaesthetics have evaporated. This hospital could be utilized to some extent, in the event of an emergency, but to be fully functional, it requires a lot of improvisation.

The other four hospitals are now in storage, undergoing the same process of deterioration. Medical personnel are needed to assume the responsibility of putting these hospitals in an operational state. Laymen cannot assemble this equipment without medical supervision. It is hard work, but it could well be that in the event of an emergency, these would be the only medical installations available. These hospitals cost you, the taxpayer, $25,000 each. In storage, they are worthless. Is it worth $125,000 to ignore the existence of these vital facilities and let them rot in a warehouse?

Disaster Plans for the Home: Emergency Food Supply

Every home should have enough stored food to permit the families' subsistence for a minimum of one month. At the end of that period, it is anticipated that transportation facilities would be adequate to either bring in supplies, or for some member of the family to go out to secure them.

Foods that have been irradiated, and which contain a high salt content, should not be consumed. The sodium becomes radioactive. Meats that have been subjected to radioactivity are safe to eat, if the outside meat is trimmed off and the remaining meat is washed. It has a bad odor and a foul taste, but it is safe. A good source of meat are the cattle that have been irradiated, if they are slaughtered immediately, before they develop the debilitating radiation syndrome. Only the skin and bones are radioactive, and they are never eaten.

Leafy vegetables and fruits contaminated with radioactive fallout are safe if they are peeled, and the remaining portion washed carefully. A word of caution in regard to discarding the peelings. Radioactivity cannot be destroyed, only transferred. Bury the refuse under at least 12 inches of soil.

Water is the most important item for survival. We can live without food for quite a while, but life cannot be maintained without water. Good sources of water are the hot water heaters, toilet cabinets and stored water in dust proof containers. Water in lakes or reservoirs that have received radioactive fallout is safe for use. The lighter dust particles of radioactivity settle on the top, while the heavier particles sink to the bottom. By using a hose to syphon the water from between the two layers, you have good, radioactive free water. If you were dying of thirst, you would, of course, drink the water from any source, radioactivity and all.

Emergency Shelter

The only protection from radioactivity is by shielding. At least three feet of dirt, 18 inches of cement, or if you can afford it, a thin layer of lead, will suffice for this purpose. Shelters should be constructed underground, close enough to the house to enable you to get into them in three minutes' time. If you were in the open and saw the bomb detonated, unless you suffered a direct hit, you would still have time to enter the shelter before the fallout arrived. Should you be at the epicenter of the bomb, you would have nothing to worry about.

Shelters should be stocked with food, medical

supplies, clothing, water, sanitary facilities, radio and some instrument for detecting radioactivity. You may have to stay in one for three weeks or longer. It will depend on the variety and size of weapon used, type of burst, and your proximity to ground zero.

At long last, these shelters are now advocated by the Federal Civil Defense Administration. Whether or not this data has filtered down to our own state CD agency, is not known. In Phoenix, they have marked the evacuation routes, showing you where to go, at least in what direction. Why not drive out along some of these routes, particularly during a traffic rush hour. Look over these so called "assembly areas." Are they equipped with shelter, food, water and sanitary supplies? Indeed they are not. Without protection from the natural elements, barring a disaster, you cannot survive without these essentials. There is no way to predetermine the direction of radioactive fallout. The direction you choose to follow could be the path of the most intense fallout pattern, and again, without shielding, you are not protected from radioactivity.

If you are still convinced that running for the hills will solve your problems, the AEC has stated that were a nuclear bomb detonated in California, within seven hours the fallout would be over central Arizona.(1)

Some persons argue that "shelters cost too much." To them, one may ask, "Can you put a price on a human life?"

Firt Aid Kits for Home and Car

These are a *must* for every family, but absolutely worthless unless all members know how to us them. "Studied neglect is better than heroic treatment."(2)

Instruction In Home Nursing and First Aid

Due to the great disproportion of doctors and nurses that always exists in disasters, these two items are of the utmost importance. Every man, woman and child should be well versed in the principles of caring for the injured at the time when it will do the most good. Every day we read or hear of someone bleeding to death or drowning, while untrained individuals compound the injuries or stand helplessly and watch the victim die.

In the event of nuclear warfare, everyone will not only have to give first aid, but self aid as well. In essence, they may have to be their own doctor. There may be a time lag of 72 hours or longer, before medical aid will be available.

Nursing services will have to be augmented by auxiliary personnel. In addition to the injured, the problem of the orphaned, aged and infirm arises. Without trained ancillary personnel to assume the care of this group, they may have to be abandoned. What better qualified group to form a nucleus to assume this responsibility than the medical auxiliary? The American Red Cross gives excellent courses in home nursing as well as first aid.

Immunizations

In disaster situations where people are crowded together under difficult conditions, communicable diseases spread rapidly. Contaminated water supplies, and persons harboring infectious diseases may be sources of infection. The injured will need anti-tetanus in huge quantities. There will be a lack of qualified personnel to administer vaccines. Without refrigeration, vaccines would be ineffective. Everyone should maintain his or her immunizations at all times. This can be accomplished before a disaster strikes. Afterwards would be too late.

Summary

We have the potential in this state for an ideal disaster program. All that is needed is the leadership and know-how of the medical profession. If they are willing to spend some of their time and energy, our preparedness can be brought to fruition. Without their guidance, nothing will be accomplished in regard to hospital facilities, disaster teams, and the motivation of the medical auxiliary to prepare on the home front.

With a trained crew of 20 men, one of the 200 bed hospitals can be set up and ready to function in four hours. Programs are needed for training these men, as well as medical technicians.

Each home should have a disaster plan, a shelter with food, water, clothing, medical supplies and sanitary facilities. All members should have a thorough knowledge of the essentials of first aid, and at least one person trained in home nursing.

Our greatest deterrent to aggression is to be so strong, well organized, trained, and equipped that an enemy would not dare attack. Should an aggressor strike now, our status would be similar to the Phoenix pedestrian. We would be either the quick or the dead, mostly the latter.

Russia has a well trained civil defense popu-

lation. It is compulsory for each individual to receive the minimum of 23 hours of instruction. They have shelters. They are ready.

As for myself, I like the American way of life. How do you feel about it? Is it worth spending a few hours a month in order to help insure our heritage?

Let's keep Old Glory and John Foster Dulles flying!

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BIBLIOGRAPHY

1. Bulletin of the Atomic Scientist. May 1958.
2. Haskell Zipperman. Management of Mass Casualties. Brooke Army FSS.
3. Anthony Wallace. John Raker, M.D. Tornado in Worcester. National Academy of Sciences.

BOOK REVIEWS

CARDIOVASCULAR DISEASES
by David Scherf, M.D. and Linn J. Boyd, M.D. 3rd ed. 829 pages. Illustrated. (1958) Grune & Stratton. $17.75.

The third edition in English accentuates the clinical rather than the laboratory approach for the diagnosis and treatment of cardiovascular diseases. All recent advances are incorporated in this completely revised and expanded text. Past editions and translations in nine foreign languages attest to the popularity of the book. Recommended to all students of cardiology. The authors are at the New York Medical College.

Stacey's Medical Books, San Francisco, Calif.

HIGH ARTERIAL PRESSURE
by F. H. Smirk, M.D. 764 pages. Illustrated. (1957) Thomas. $15.

The many known causes of arterial hypertension are thoroughly reviewed by the distinguished leader from New Zealand. Research in his laboratory and clinic permits him to bring the discussions up to date, especially as to diagnosis and treatment. A well balanced and extensive bibliography rounds out an excellent and timely treatise.

Stacey's Medical Books, San Francisco, Calif.

REHABILITATION OF THE CARDIOVASCULAR PATIENT
by Paul D. White, M.D., Howard A. Rusk, M.D., Philip R. Lee, M.D., and Bryan Williams, M.D. 176 pages. Illustrated. (1958) Blakiston-McGraw. $7.

A small compact book presents conclusions taken from a lot of experience. Well-illustrated, the volume seeks to stimulate and to spread a new understanding of handicapped cardiovascular victims, with an aim to have the patient "live within the limits of his disability, *but* to the hilt of his capabilities." The 1957 companion volume, *Cardiovascular Rehabilitation,* by the same authors really should be reviewed at the same time.

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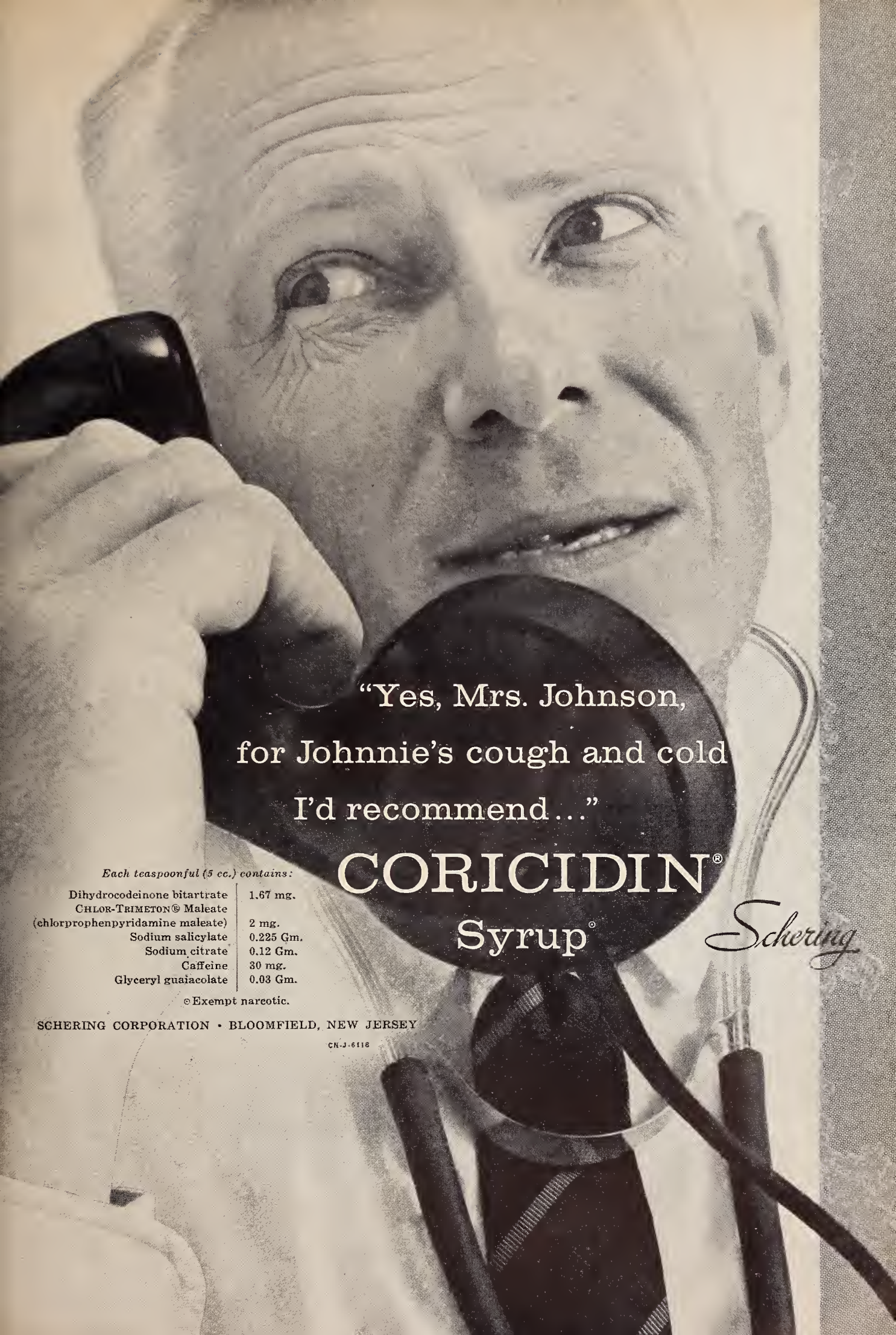
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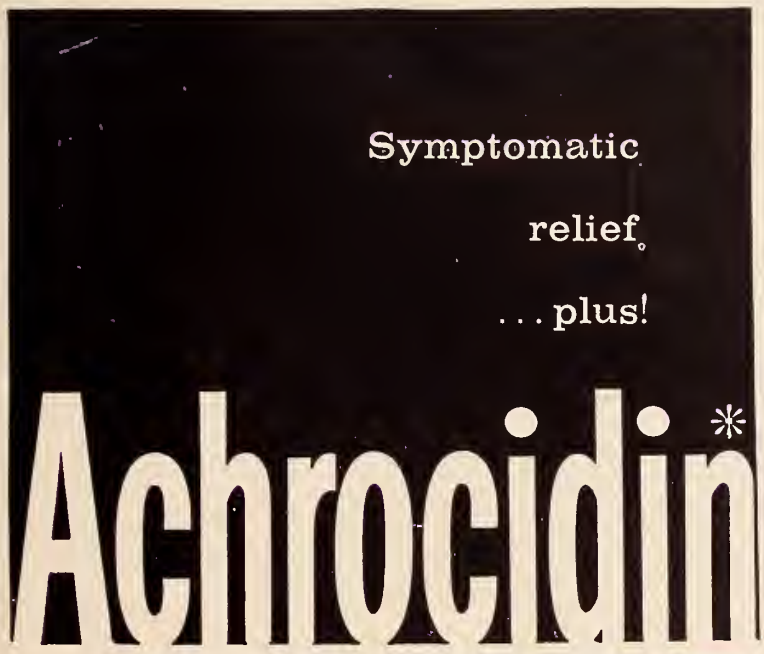
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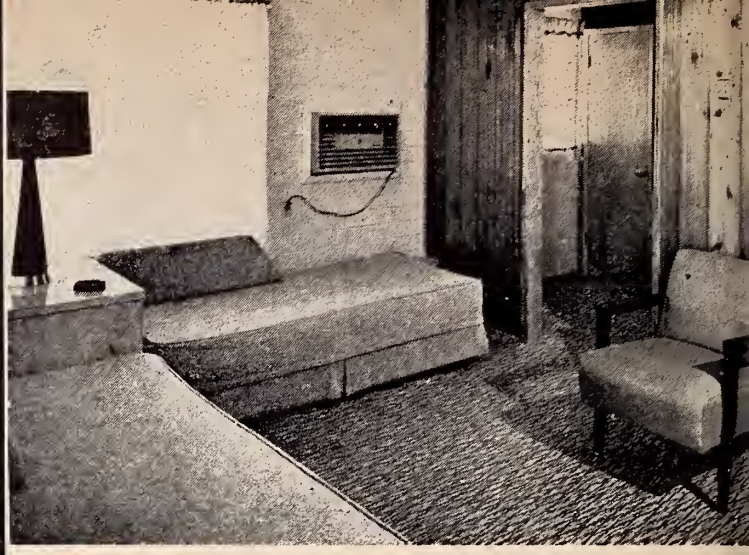
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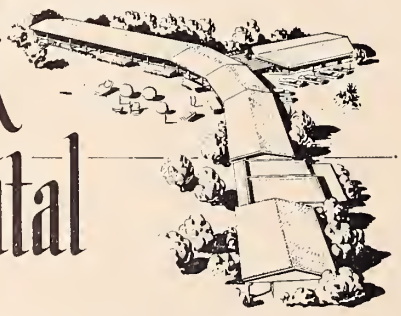


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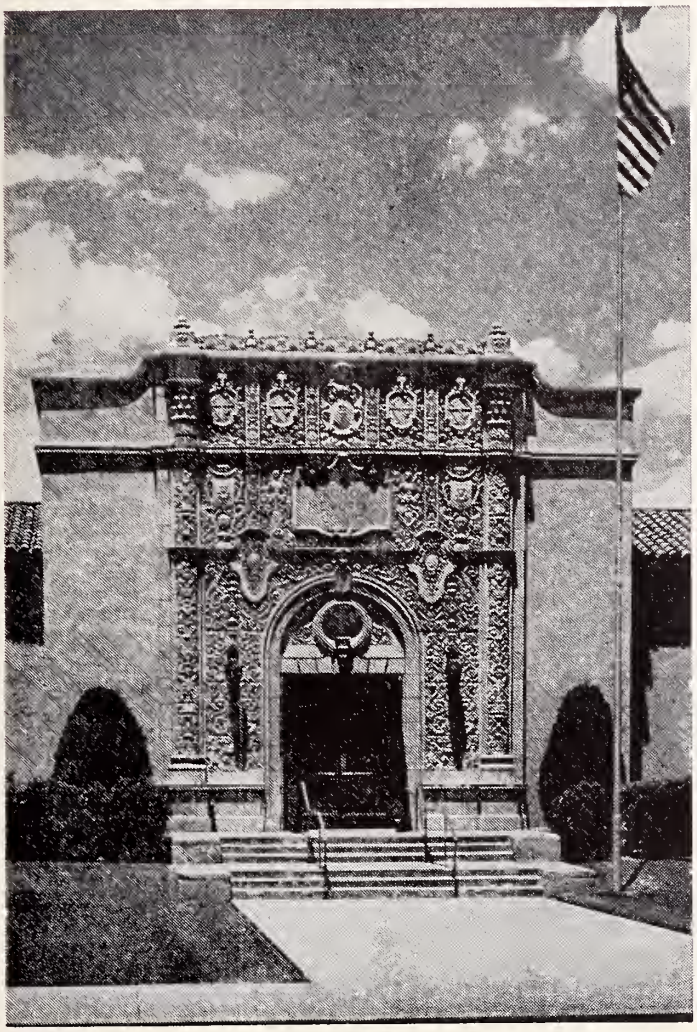
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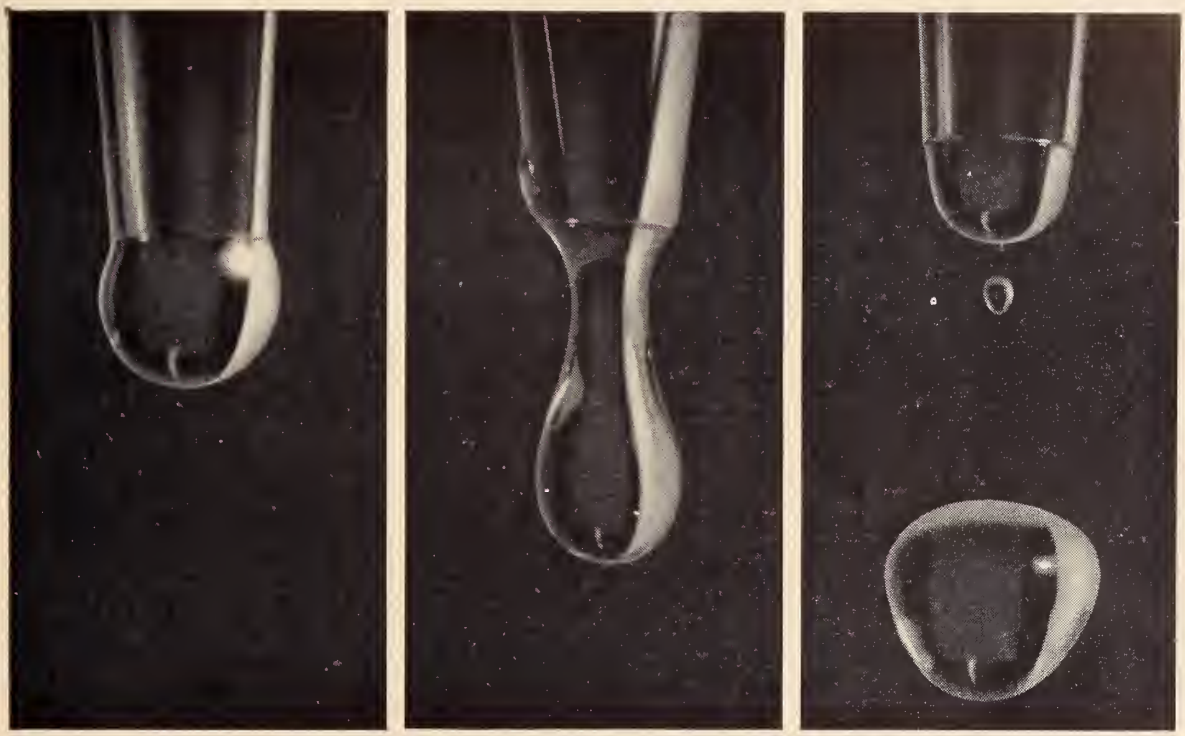
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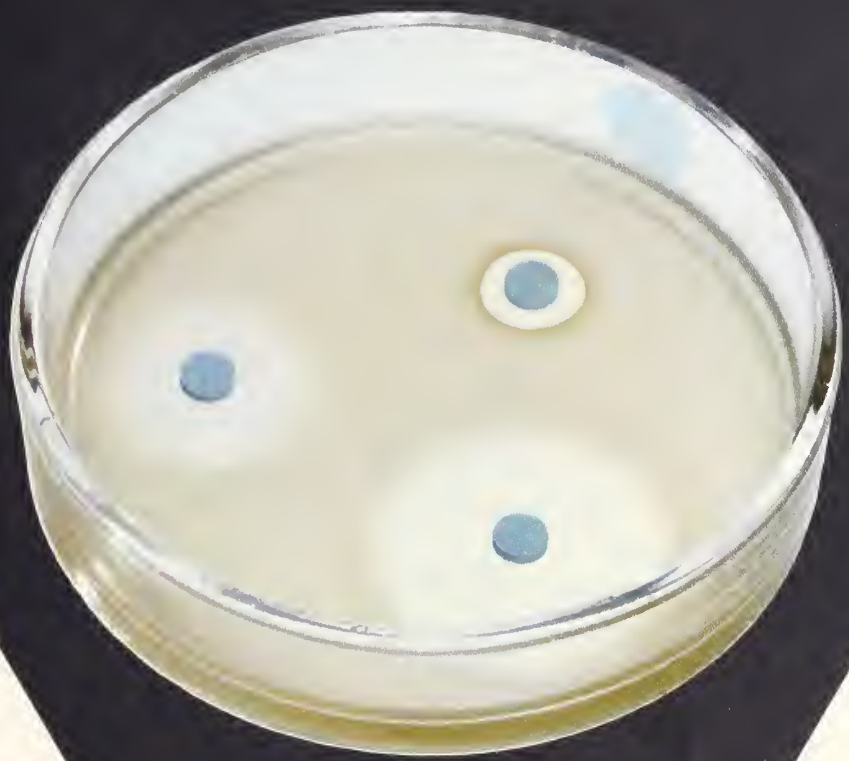
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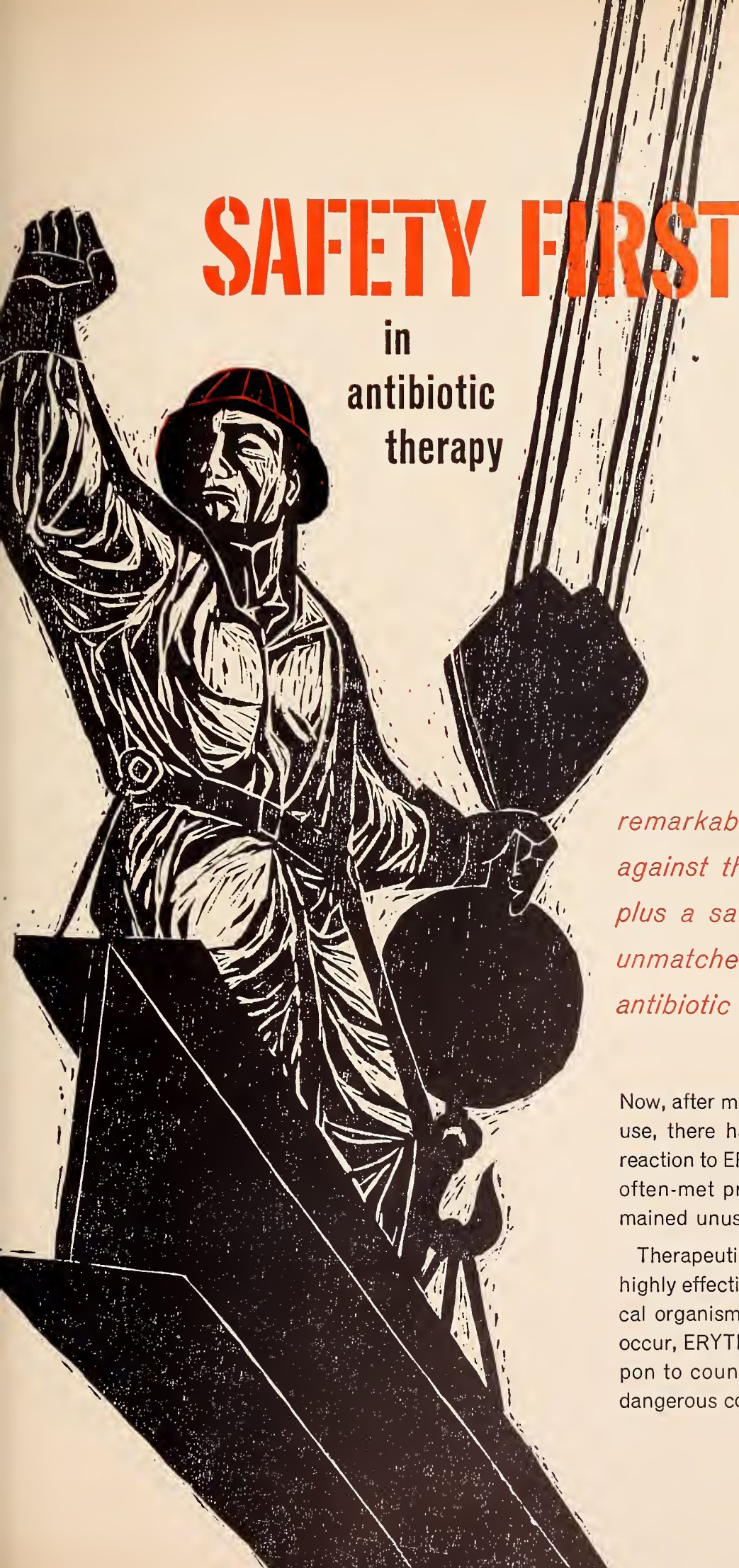
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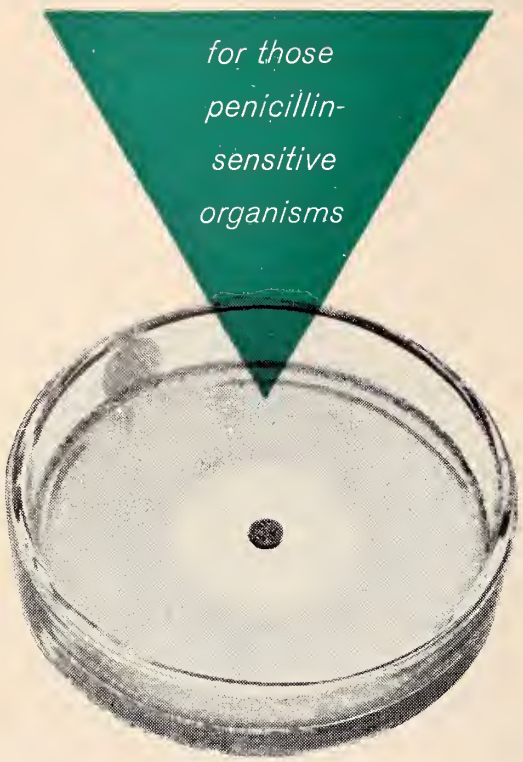
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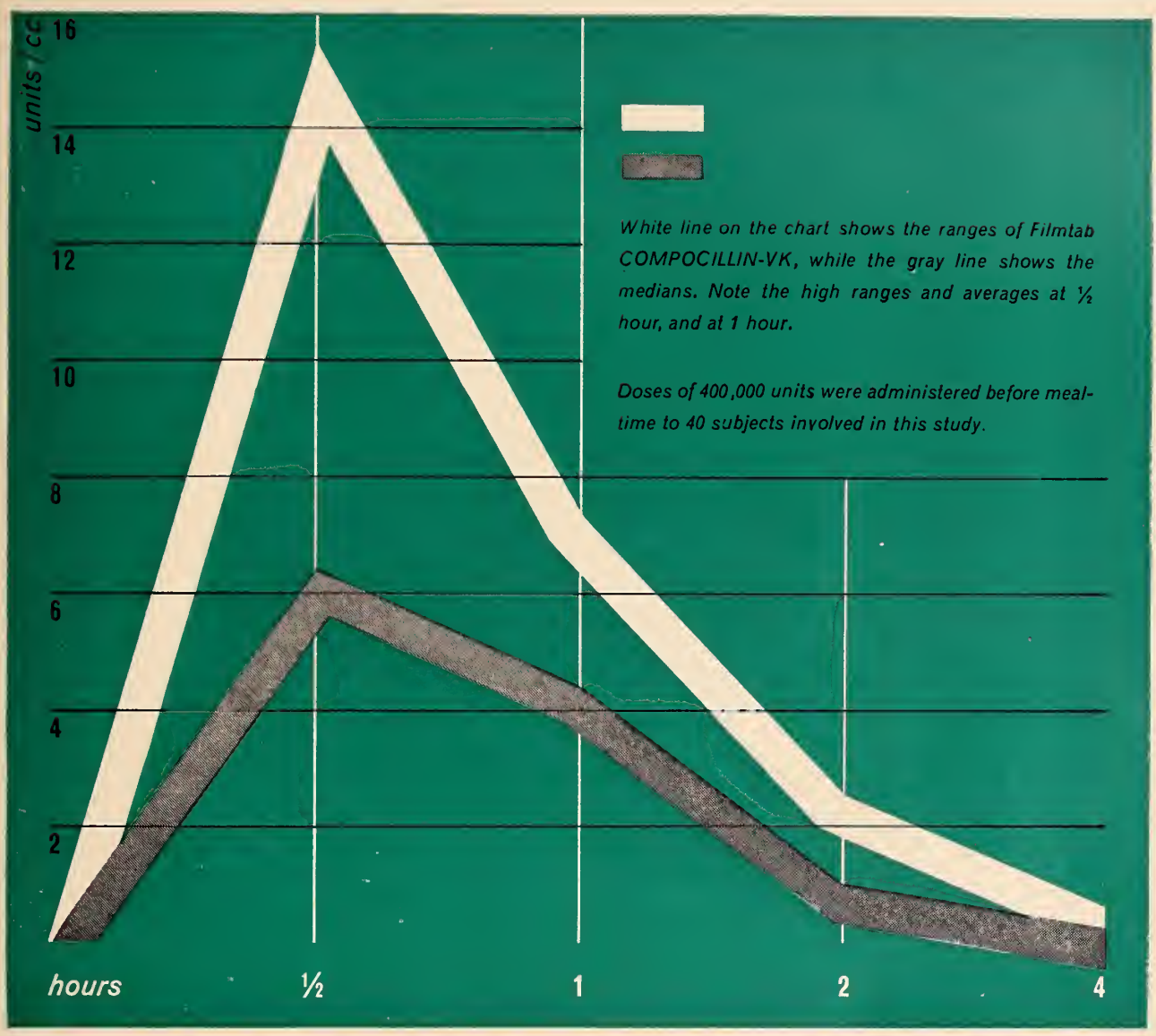
COMPOCILLIN-VK®



the higher blood levels of

Potassium
Penicillin V

809136



Now, in both Filmtab and Oral Solution, patients get high penicillin V blood levels with Compocillin-VK. Note the chart. Concentrations are three times higher than an equivalent dose of potassium penicillin G.

Compocillin-VK is indicated whenever you desire oral penicillin therapy. In severe infections, oral penicillin should be supplemented by parenteral therapy to obtain the maximum therapeutic response.

Indications:

Against all organisms sensitive to oral penicillin therapy. For prophylaxis and treatment of complications in viral conditions. And as a prophylaxis in rheumatic fever and rheumatic heart disease.

Dosage:

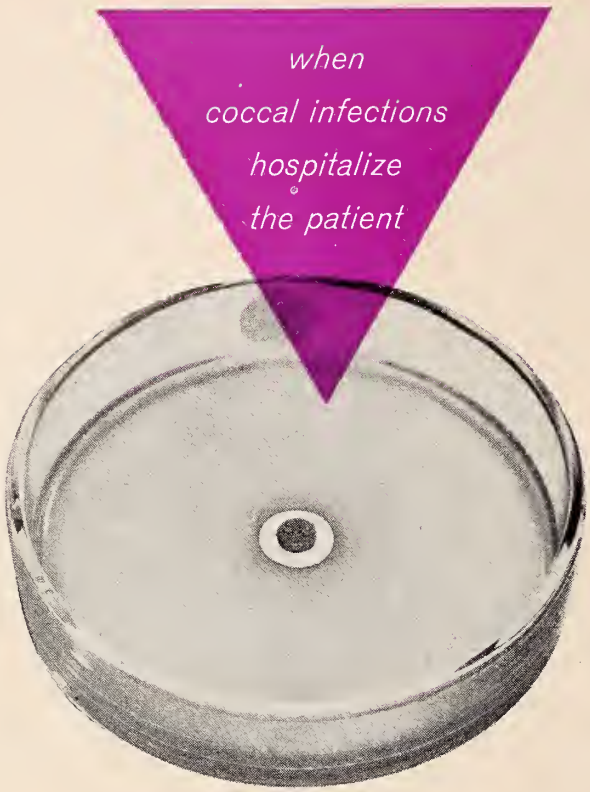
Depending on the severity of the infection, the usual adult dose is 125 to 250 mg. (200,000 to 400,000 units) every four to six hours. For children, dosage may be reduced in proportion to body weight.

Supplied:

In Filmtabs, representing 125 mg. (200,000 units) of potassium penicillin V, bottles of 50 and 100. In 250 mg. (400,000 units), bottles of 25 and 100.

For Oral Solution, Compocillin-VK comes in dry granules for easy reconstitution with water. Cherry-flavored, the granules come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of solution represents 125 mg. (200,000 units) of potassium penicillin V.

Compocillin-V® Oral Suspension (Ready-Mixed), Hydrabamine Penicillin V, Abbott, comes in 40-cc. and 80-cc. bottles. Each tasty, banana-flavored 5-cc. teaspoonful represents 180 mg. (300,000 units) of penicillin V. At all pharmacies. Abbott



the most effective antibiotic available against staphylococci

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(RISTOCETIN, ABBOTT)

PREPARED FROM PURE CRYSTALS

Provides Outstanding Clinical Effectiveness Against Coccal Infections, Including Resistant Staphylococci and Enterococci[1]

Provides Bactericidal Action Against Coccal Infections[1]

Provides Successful Short-Term Therapy In Endocarditis[2]

42189

Now, after just 12 months, SPONTIN has become an outstanding drug of choice against resistant staphylococci, and in other serious coccal infections.

Six papers presented at the Antibiotics Symposium[1] reported the effectiveness of SPONTIN against resistant staphylococcal infections. Clinical reponses involved enterococcal endocarditis, staphylococcal pneumonias and staphylococcal bacteremias. Many of these patients were going downhill steadily—in spite of treatment by other antibiotics.

Toxicity? Careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals. A recent report[3] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a safe and potent agent to employ in the treatment of staphylococcal infections."

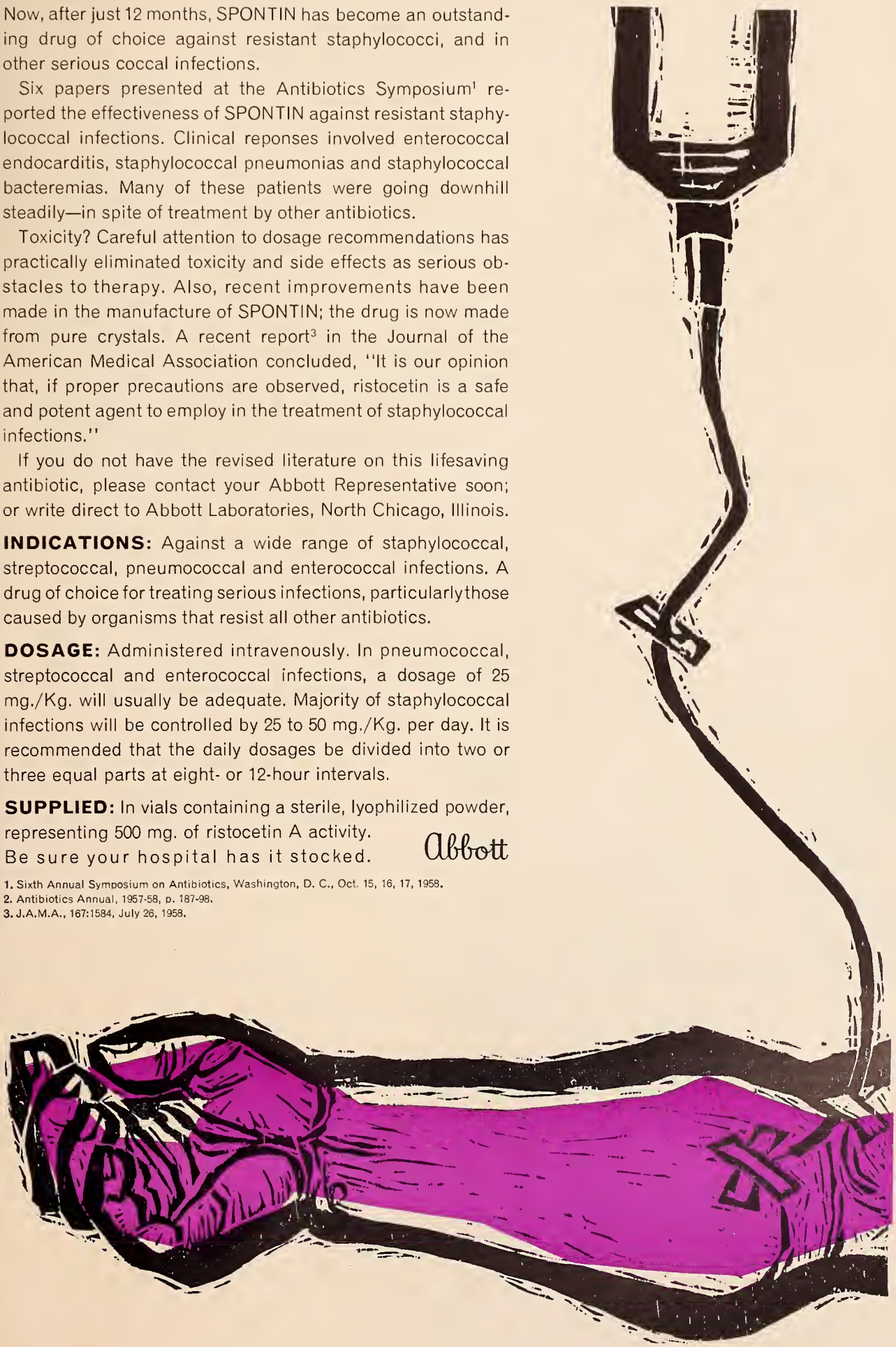
If you do not have the revised literature on this lifesaving antibiotic, please contact your Abbott Representative soon; or write direct to Abbott Laboratories, North Chicago, Illinois.

INDICATIONS: Against a wide range of staphylococcal, streptococcal, pneumococcal and enterococcal infections. A drug of choice for treating serious infections, particularly those caused by organisms that resist all other antibiotics.

DOSAGE: Administered intravenously. In pneumococcal, streptococcal and enterococcal infections, a dosage of 25 mg./Kg. will usually be adequate. Majority of staphylococcal infections will be controlled by 25 to 50 mg./Kg. per day. It is recommended that the daily dosages be divided into two or three equal parts at eight- or 12-hour intervals.

SUPPLIED: In vials containing a sterile, lyophilized powder, representing 500 mg. of ristocetin A activity.
Be sure your hospital has it stocked. Abbott

1. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
2. Antibiotics Annual, 1957-58, p. 187-98.
3. J.A.M.A., 167:1584, July 26, 1958.



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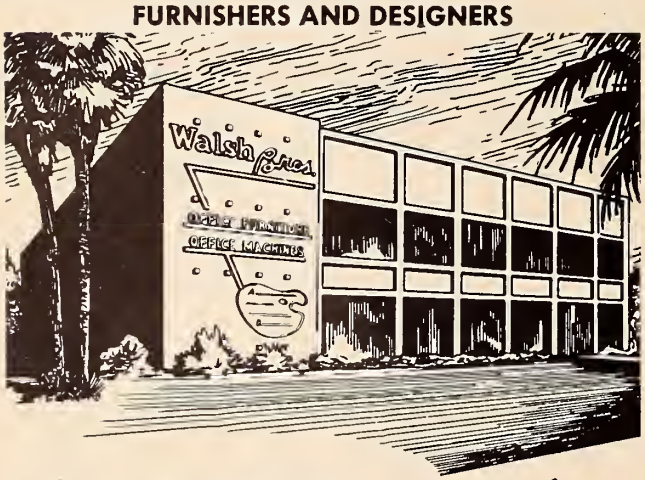
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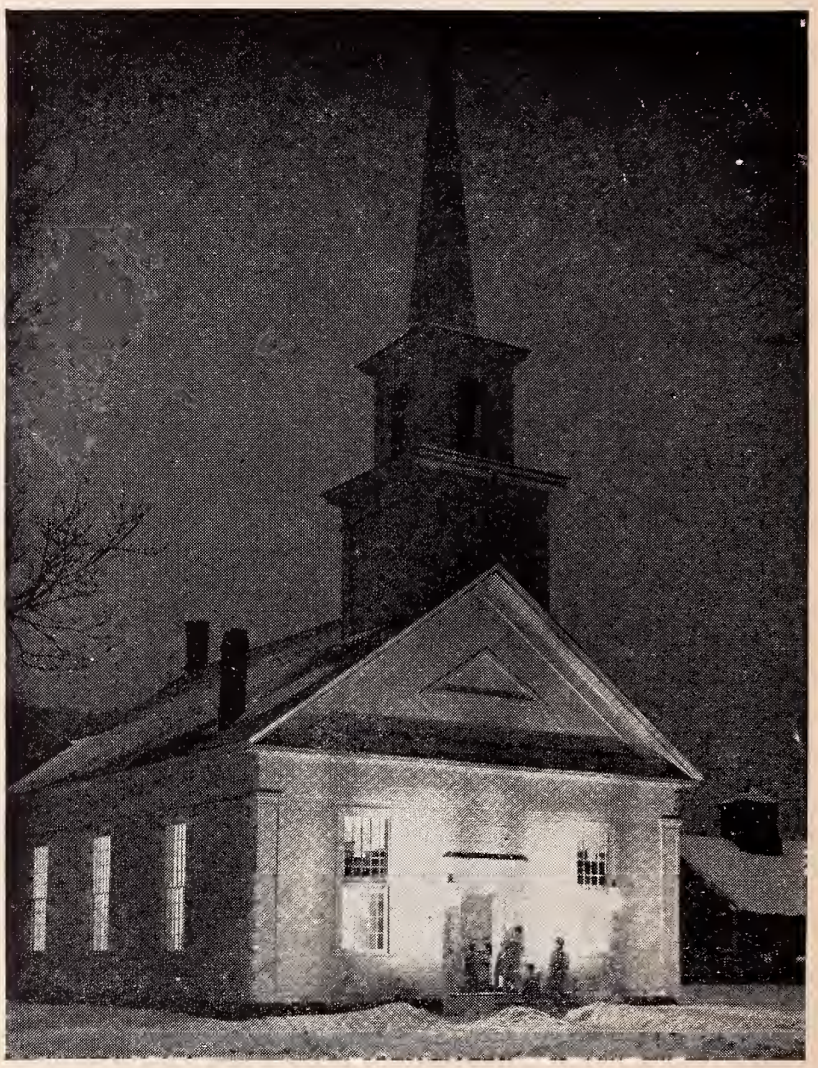
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motor control, or normal behavior
Has not produced hypotension,
agranulocytosis or jaundice

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gr. ½



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...from moderate to severe pain complicated by tension, anxiety and restlessness.

'CODEMPIRAL'® NO. 3*



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Acetophenetidin	gr. 2½
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...from pain of muscle and joint origin, simple headache, neuralgia, and the symptoms of the common cold.

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Phenobarbital	gr. ¼
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Exactly how does new Halodrin* restore the "premenopausal prime" in postmenopausal women?

Webster defines "prime" as the period of greatest health, strength, and beauty. In a woman, these are the childbearing years between puberty and menopause—the years when her hormone production is highest.

The inevitable reduction in this hormone production as she enters the menopause often results in physical discomfort in the form of hot flushes, nervousness, insomnia, or a multiplicity of other symptoms with which you are familiar. Superimposed on this physical picture is the psychic trauma brought on by this unavoidable evidence of aging. The thing that brings her to a physician is simply that she "feels bad."

You can't make her 35 again—but the odds are good that you can make her feel like it! The secret is a combination of reassurance and hormones. The exact form and amount of the former defy objective analysis, but the latter can now be provided with scientific precision. Reduced to essentials, here is the explanation of exactly how hormones—in the form of Upjohn's new Halodrin—restore the "premenopausal prime."

The normal premenopausal woman excretes estrogens in the urine in the form of estradiol, estrone, and estriol, in an approximate 28-day average ratio of 39:15:46. Starting with this urinary excretion of estrogens, it is possible to calculate backwards and estimate the amount of estradiol that must have been secreted endogenously in order to produce these urinary levels. This is possible because the proportion of estrogens which appears in the urine following parenteral administration has been established in castrated women.

On this basis, the average endogenous output of estrogens is about 160 micrograms per day during a menstrual cycle, and 80 micrograms per day in postmenopausal women (see chart opposite). Therefore, the restoration of the "premenopausal prime" in the postmenopausal woman requires the replacement of approximately the equivalent of the 80 micrograms of estradiol per day that she no longer secretes endogenously.

Oral ethinyl estradiol is about 2 to 2½ times as potent as parenteral estradiol. Therefore, the replacement of 80 micrograms of endogenous estradiol production per day is accomplished by the oral administration of 32 to 40 micrograms of ethinyl estradiol per day.

Each Halodrin tablet contains 20 micrograms of ethinyl estradiol, which means that the recommended dosage of 2 tablets per day provides 40 micrograms of ethinyl estradiol. This offsets the loss of 80 micrograms of endogenous estradiol production in the menopausal woman; i.e., restores the "premenopausal prime."

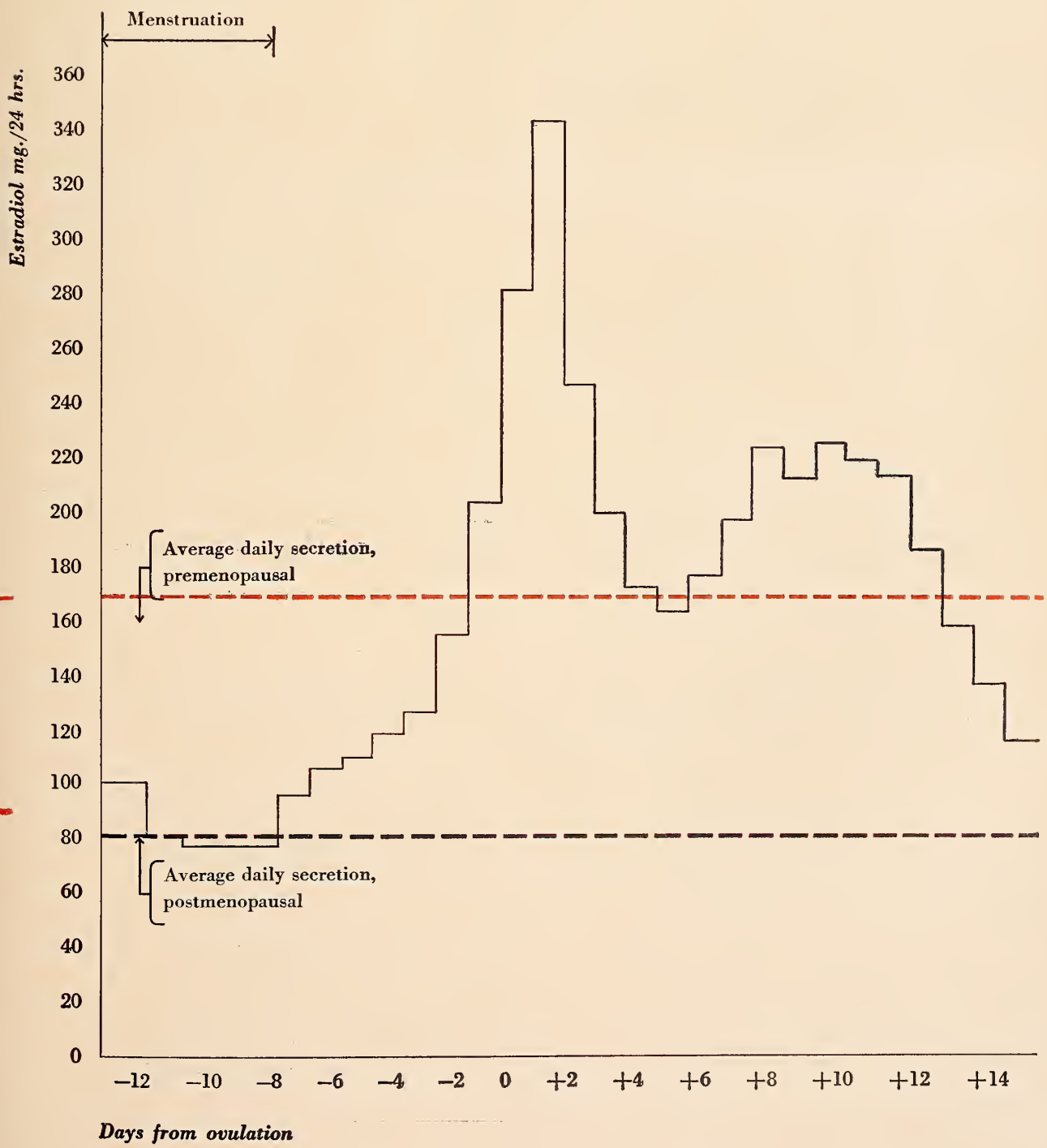
Each Halodrin tablet also contains 1 mg. of Upjohn-developed Halotestin* (fluoxymesterone)—the most potent oral androgen known. The primary purpose is to "buffer" the ethinyl estradiol just enough to prevent breakthrough bleeding, which is obviously undesirable in the menopause. It also exerts other beneficial hormonal effects, one of which, in common with ethinyl estradiol, is a powerful anabolic action so desirable in patients of advanced years.

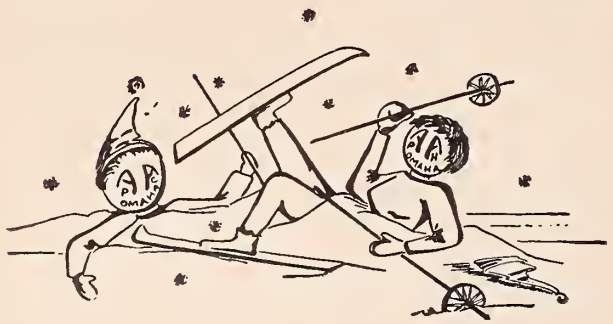
Upjohn

*TRADEMARK, REG. U.S. PAT. OFF.

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Endogenous estrogen secretion (mg./24 hours)
(calculated from average 24-hour urinary excretion of estradiol, estrone, and estriol)





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*Ford, R.V., and Moyer, J.H.: Rauwolfia Toxicity in the Treatment of Hypertension, Postgrad. Med. *23*:41 (Jan.) 1958.

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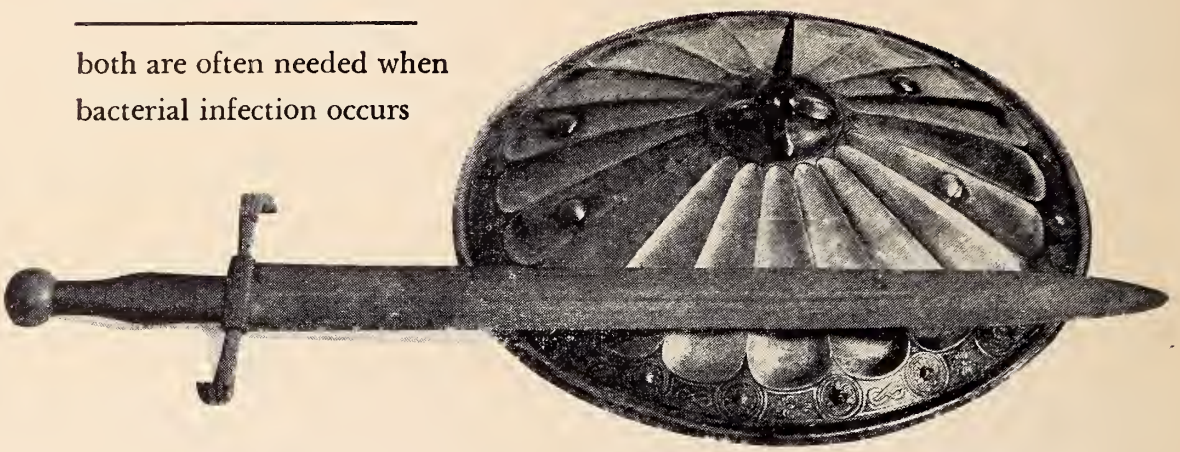
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After full effect one tablet suffices

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▪ prompt, aggressive
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monilial complications

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Mysteclin-V contains tetracycline phosphate complex

It provides a direct strike at all tetracycline-susceptible organisms (most pathogenic bacteria, certain rickettsias, certain large viruses, and Endamoeba histolytica).

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Available on prescription only.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

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Each Tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
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Bottles of 24 and 100.

SYRUP *(lemon-lime flavored)*

Each teaspoonful (5 cc.) contains:

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
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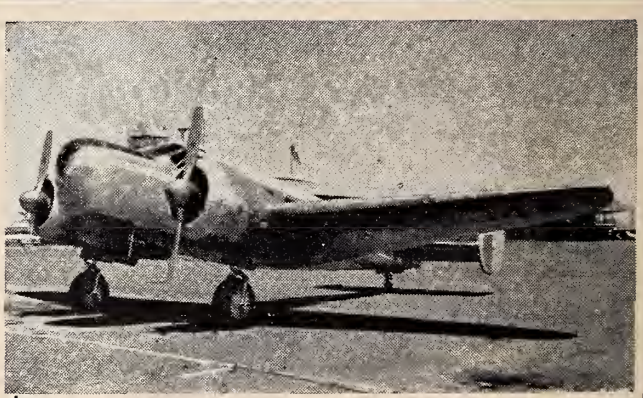
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achievement of the first corticosteroid
decade—DECADRON (dexamethasone)
—a new and unique compound, which
brings a new order of magnitude
to corticosteroid therapy



Decadron*

DEXAMETHASONE

to treat more patients more effectively

MSD MERCK SHARP & DOHME

a new order of magnitude

In Anti-Inflammatory Potency

DECADRON "possesses greater anti-inflammatory potency per milligram than any steroid yet produced,"[1] and is "the most potent steroid thus far synthesized."[2] Milligram for milligram, it is, on the average, 5 times more potent than 6-methylprednisolone or triamcinolone; 7 times more potent than prednisone; 28 times more potent than hydrocortisone; and 35 times more potent than cortisone.

In Dosage Reduction

Thanks to this unprecedented potency, DECADRON is "highly effective in suppressing the manifestations of rheumatoid arthritis when administered in remarkably small daily milligram doses."[3] In a number of cases, doses as low as 0.5-0.8 mg. proved sufficient for daily maintenance. The average maintenance dosage in rheumatoid arthritis is about 1.5 mg. daily.

In Elimination and Reduction of Side Effects

Virtual absence of diabetogenic activity, edema, sodium or water retention, hypertension, or psychic reactions has been noted with DECADRON.[1,2,3,4] Other "classical" reactions were less frequent and less severe. DECADRON showed no increase in ulcerogenic potential, and digestive complaints were rare. Nor have there been any new or "peculiar" side effects, such as muscle wasting, leg cramps, weakness, depression, anorexia, weight loss, headache, dizziness, tachycardia or erythema. Thus DECADRON introduces a new order of magnitude in safety, unprecedented in corticosteroid therapy.

In Therapeutic Effectiveness

With DECADRON, investigators note "a decided intensification of the anti-inflammatory activity"[3] and antirheumatic potency.[4] Clinically, this was manifested by a higher degree of improvement in many patients, previously treated with prednisteroids,[3] and by achievement of satisfactory control in an impressive number of recalcitrant cases.[3,4]

In Therapeutic Range

More patients can be treated more effectively with DECADRON. Its higher anti-inflammatory potency frequently brings relief to cases resistant to other steroids. Virtual freedom from diabetogenic effect in therapeutic dosage permits treatment of many diabetics without an increase in insulin requirements. Absence of hypertension and of sodium and fluid retention allows effective therapy of many patients with cardiovascular disorders. Reduction in the incidence and severity of many side effects extends the benefits of therapy to numerous patients who could not tolerate other steroids. And a healthy sense of well-being, reported by nearly all patients on DECADRON, assures greater patient cooperation.

References:

1. Boland, E.W.: California Med. 88:417 (June) 1958.
2. Bunim, J.J., et al.: Arthr. & Rheum. 1:313 (Aug.) 1958.
3. Boland, E.W., and Headley, N.E.: Paper read before the Am. Rheum. Assoc., June 21, 1958, San Francisco, Cal.
4. Bunim, J.J., et al.: Paper read before the Am. Rheum. Assoc., June 21, 1958, San Francisco, Cal.

To treat more patients more effectively in all allergic and inflammatory disorders amenable to corticosteroid therapy

DOSAGE AND ADMINISTRATION

With proper adjustment of dosage, treatment may ordinarily be changed over to DECADRON from any other corticosteroid on the basis of the following milligram equivalence:

One 0.75 mg. tablet of DECADRON (dexamethasone) replaces:

One 4 mg.	One 5 mg.	One 20 mg.	One 25 mg.
tablet of methylprednisolone or triamcinolone	tablet of prednisolone or prednisone	tablet of hydrocortisone	tablet of cortisone

SUPPLIED:

As 0.75 mg. scored pentagon-shaped tablets; also as 0.5 mg. tablets to provide maximal individualized flexibility of dosage adjustment.

Detailed literature is available to physicians on request.

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Decadron*

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The great corticosteroid era
opened ten years ago
with the introduction of CORTONE® (cortisone).
Today, MERCK SHARP & DOHME proudly
presents the crowning
achievement of the first corticosteroid
decade—DECADRON (dexamethasone)
—a new and unique compound, which
brings a new order of magnitude
to corticosteroid therapy



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to treat more patients more effectively

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tops with adults, too.

Each nugget contains:

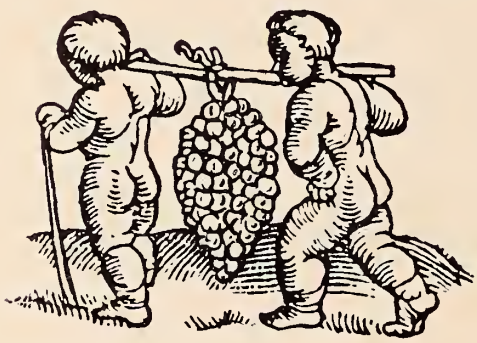
Vitamin A	5,000 Units*
Vitamin D	1,000 Units*
Vitamin C	75 mg.
Vitamin E	2 Units†
Vitamin B-1	2.5 mg.
Vitamin B-2	2.5 mg.
Vitamin B-6	1 mg.
Vitamin B-12 Activity	3 mcg.
Panthenol	5 mg.
Nicotinamide	20 mg.
Folic Acid	0.1 mg.
Biotin	30 mcg.
Rutin	12 mg.
Calcium Carbonate	125 mg.
Boron	0.1 mg.
Cobalt	0.1 mg.
Fluorine	0.1 mg.
Iodine	0.2 mg.
Magnesium	3.0 mg.
Manganese	1.0 mg.
Molybdenum	1.0 mg.
Potassium	2.5 mg.

*U.S.P. UNITS †INT. UNITS

Dose: One Nugget per day
Supplied: Boxes of 30—one month's supply
Boxes of 90—three months' supply or family package.

WHITE LABORATORIES, INC.,
KENILWORTH, N. J.

why wine in digestive disorders?



Although the effects of wine on the digestive system have been discussed for centuries, it has been only in recent years that many of its physiological attributes have been determined.

WINE AND THE SALIVARY GLANDS—The increase in salivary flow following a moderate intake of wine is apparent almost immediately,[1] such increase being attributed to direct sensitization of secretory nerve endings.[2]

WINE AND GASTRIC SECRETION—With a pH averaging 3.2, wine resembles gastric juice more closely than does any other natural beverage. Its tannins, organic acids and salts of these acids serve as buffering agents to maintain this pH. Relatively low in content of alcohol, table wine has been found to stimulate gastric secretion and induce production of gastric juice high in hydrochloric acid, sodium chloride, rennin and pepsin.[3]

WINE AND THE DIGESTIVE TRACT—With its low concentration of alcohol, wine in moderate consumption has been found to induce a marked increase in biliary flow.[4] This, together with increased function of pancreatic enzymes, may thus encourage better digestion of fatty foods.

THEREFORE—IN THE TREATMENT OF DIGESTIVE DISORDERS—Wine is being widely recommended in the treatment of anorexia, hypochlorhydria without gastritis, mucous colitis, spastic constipation and diarrhea, and in digestive disorders stemming from emotional tension and anxiety.

These and other modern ℞ uses for wine are discussed in the brochure "Uses of Wine in Medical Practice." For your free copy write—Wine Advisory Board, 717 Market Street, San Francisco 3, California.

1. Winsor, A. L. and Strongin, E. I.: J. Exper. Psychol. 16:589 (1933).
2. Beazell, J. M., and Ivy, A. C.: Quart. J. Studies on Alc. 1:45 (1940).
3. Foroy, G., and Weissenboch, R. J.: Hôpitol 25:306 (1937).
4. Okado, S.: J. Physiol. 49:457 (1915).

new

Tao* PRONOUNCED TAY-O

(brand of triacetyloleandomycin with glucosamine)

Capsules / Oral Suspension

designed for effective control of common gram-positive infections

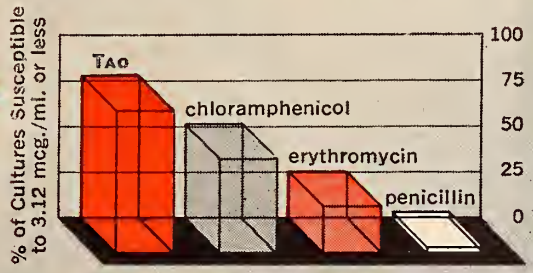
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
Failure	17 (7%)	11 (6%)	3 (3%)

Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. Tao has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to Tao, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

plus . . . stability in gastric acid • rapid, high and sustained blood levels • high urinary concentrations • outstanding palatability in a liquid preparation.

Dosage and Administration: Dosage varies according to the severity of the infection. For adults, the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. For children 8 months to 8 years of age, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since Tao is therapeutically stable in gastric acid, it may be administered at any time, without regard to meals.

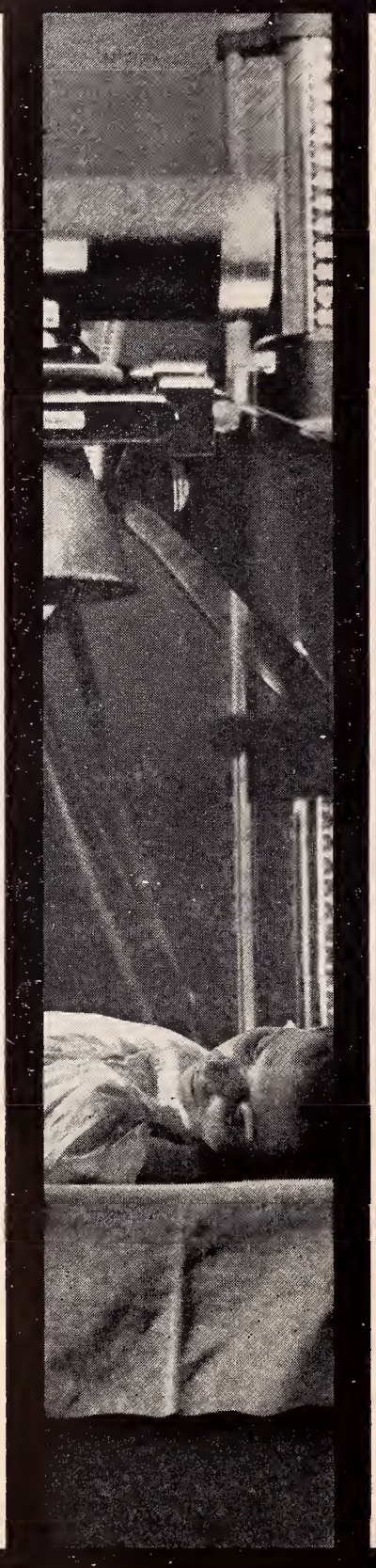
Supplied: Tao Capsules—250 mg. and 125 mg.; bottles of 60. Tao for Oral Suspension—1.5 Gm.; 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

℞ PFIZER NEW YORK 17, N. Y.

Division, Chas. Pfizer & Co., Inc. SCIENCE FOR THE WORLD'S WELL-BEING

*TRADEMARK



which patients with noncalculous gallbladder disease should undergo surgery?

Essentially those who are not relieved by a prolonged trial period of medical management.
Source—Lichtenstein, M. E.: GP *16*:114 (Oct.) 1957.

for medical, preoperative, postoperative management of biliary disorders

"therapeutic bile"

DECHOLIN® and DECHOLIN SODIUM®

corrects biliary stasis

Hydrocholeresis with DECHOLIN produces abundant, thin, free-flowing, therapeutic bile. This flushes thickened bile, mucous plugs and debris from the biliary tract.

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Elkhart, Indiana
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Toronto

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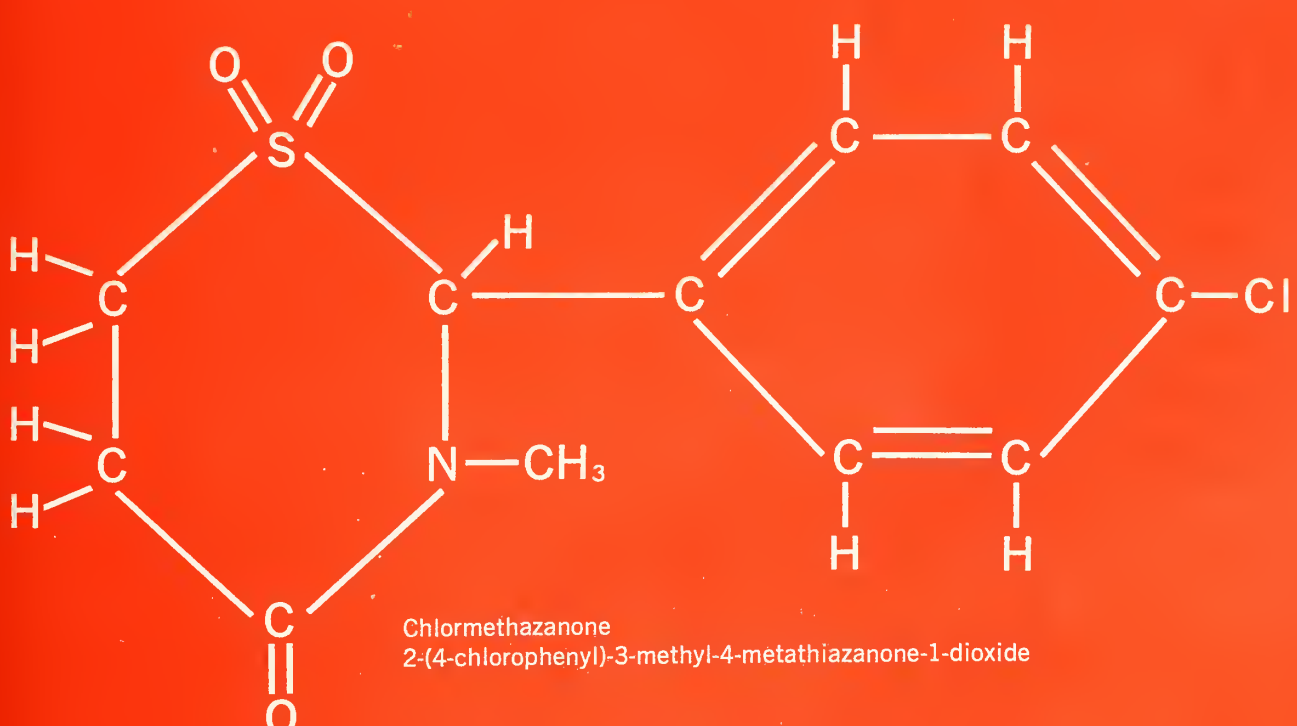
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CLINICAL BRIEFS FOR MODERN PRACTICE

Winthrop Laboratories
introduces

Trancopal®

BRAND OF CHLORMETHAZANONE

completely new major chemical contribution to therapeutics



Chlormethazanone
2-(4-chlorophenyl)-3-methyl-4-metathiazanone-1-dioxide

marketed clinically to any other drug in clinical use

designed to be equally effective as both

a MUSCLE RELAXANT

a TRANQUILIZER

Trancopal

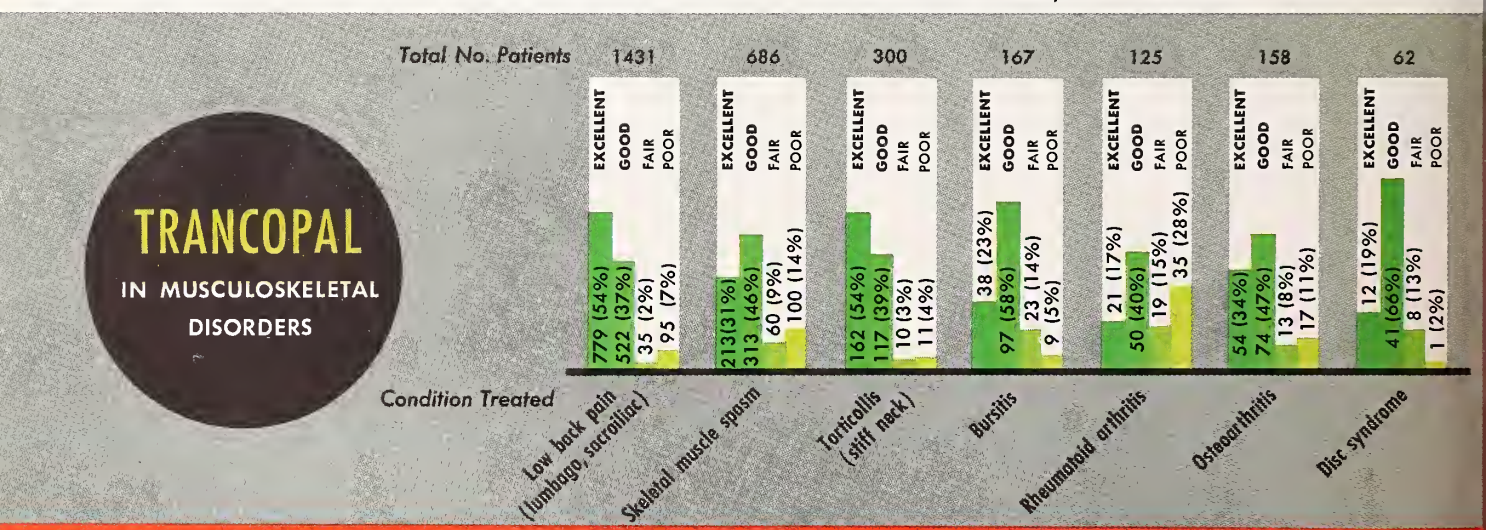
*the first true "TRANQUILAXANT"**

offering new freedom for your patients... from muscle spasm, from tension and anxiety, from side effects

* **tran-qui-lax-ant** (tran'kwi-lak'sa
[< L. tranquillus, quiet; L. laxare
loosen, as the muscles]

EXCEEDS OLDER DRUGS UP TO 4 TIMES IN PERCENTAGE OF CLINICAL EFFICACY (Lichtma

The results of clinical studies of over 4000 patients by 105 physicians demonstrate that TRANCOPAL often is effective wh other drugs have failed. From these studies it is clear that TRANCOPAL probably can provide more help for a greater number tense, spastic, and/or emotionally upset patients than any other chemotherapeutic agent in current use.





TRANCOPAL . . . the first true "tranquilaxant"

Both a muscle relaxant and a calmative agent.

In musculoskeletal disorders, 91 per cent effective.

In anxiety and tension states, 93 per cent effective.

Lower incidence of side effects than with zoxazolamine, methocarbamol or meprobamate.

No known contraindications. Blood pressure, pulse rate, respiration and digestive processes unaffected by therapeutic dosage. No effects on hematopoietic system or liver and kidney function.

Low toxicity. In animals, even less toxic than aspirin.

No gastric irritation. Can be taken before meals.

No clouding of consciousness, no euphoria or depression.

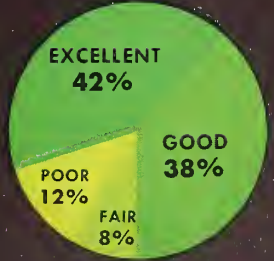
No perceptible soporific effect, even in high dosage.

CLINICAL RESULTS IN 4092 PATIENTS



MUSCULOSKELETAL CONDITIONS
2929 Patients

+



PSYCHOGENIC CONDITIONS
1163 Patients

=



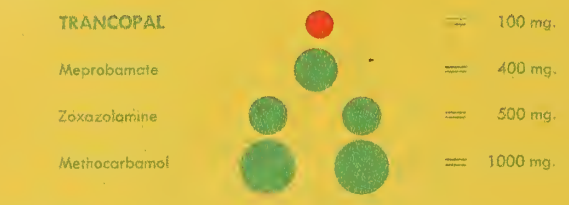
TOTAL 4092 Patients

MAJOR IMPROVEMENT
84%

Compare Trancopal with 3 widely used central relaxants

FOR ACTIVITY

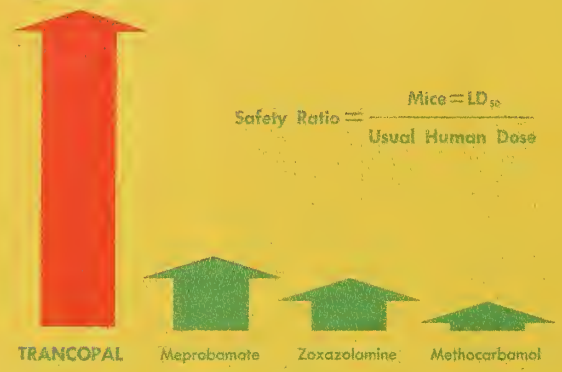
Single Dose



Daily Dose
Same as above, t.i.d.

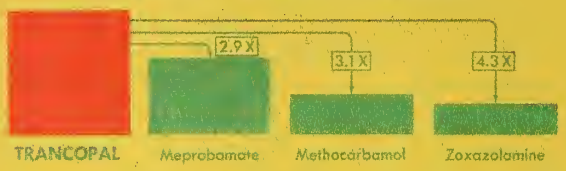
Considering the usual human dose, Trancopal, the first true "tranquilaxant," is four to ten times as potent per milligram.

FOR SAFETY



Comparative pharmacologic tests showed that Trancopal is up to thirteen times as safe, or up to thirteen times less toxic. The measure of safety was the LD_{50} in mice/usual human dose.

FOR CLINICAL EFFECTIVENESS



A clinical comparison in low back pain, torticollis, bursitis and anxiety states showed that Trancopal is up to four times as effective. Each of 40 patients received all four drugs in random rotation for several days. While each of the four drugs gave some relief, only the one providing the most effective relief was recorded.

INDICATIONS

Musculoskeletal
- Low back pain (lumbago)
- Neck pain (torticollis)
- Bursitis
- Rheumatoid arthritis
- Osteoarthritis
- Disc syndrome
- Fibrositis
- Joint disorders (ankle sprain, tennis elbow, etc.)
- Myositis
- Postoperative myalgias

Psychogenic
- Anxiety and tension states
- Dysmenorrhea
- Premenstrual tension
- Asthma
- Emphysema
- Angina

Neurologic
- Muscle spasm in paralysis agitans, multiple sclerosis, hemiplegia, poliomyelitis

TRANCOPAL thoroughly evaluated clinically

"In the treatment of conditions associated with skeletal muscle spasm there was a high percentage of satisfactory results (excellent, good or fair) in 310 patients (94%) out of 331 treated. . . . In 120 patients with simple anxiety or tension states results were satisfactory in 114 (95%). Dosage of chlormethazanone in all cases was 100 mg. t.i.d. As well as relieving the anxiety or tension state, chlormethazanone also allowed these patients to resume their usual occupations." (Lichtman)

Trancopal

the first true "TRANQUILAXANT"

Dosage: One Caplet (100 mg.) orally three or four times daily. Relief of symptoms occurs in fifteen to thirty minutes and lasts from four to six hours.

Supplied: Trancopal Caplets® (scored) 100 mg., bottles of 100.

Winthrop Laboratories • New York 18, N. Y.

• Baker, A. B.: Modern Med. 26:140, April 15, 1958. • Cohen, A. I.: In preparation. • Cooperative Study, Department of Medical Research, Winthrop Laboratories. • Gesler, R. M., and Coulston, F.: Toxicol. & Appl. Pharmacol. To be published. • Gesler, R. M., and Surrey, A. R.: J. Pharmacol. & Exper. Therap. 122:24A, Jan., 1958. • Gesler, R. M., and Surrey, A. R.: J. Pharmacol. & Exper. Therap. 122:517, April, 1958. • Lichtman, A. L.: Kentucky Acad. Gen. Pract. J. 4:28, Oct., 1958. • Surrey, A. R.; Webb, W. G., and Gesler, R. M.: J. Am. Chem. Soc. 80:3469, July 5, 1958.

Printed in U. S. A. 11-58 (3928

you were to examine these patients



could you detect the uveitis patient on Medrol*?

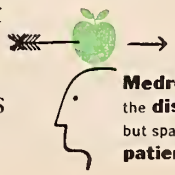
Probably not. Not without a history.

First, because he's more than likely symptom-free.

Second, because he shows none of the disturbing changes in appearance, behavior or metabolism sometimes associated with corticotherapy.

Even your practiced clinical eye would find it difficult to spot someone else's Medrol patient.

But in your own patients, you could see the advantages of Medrol right away. Why not try it?

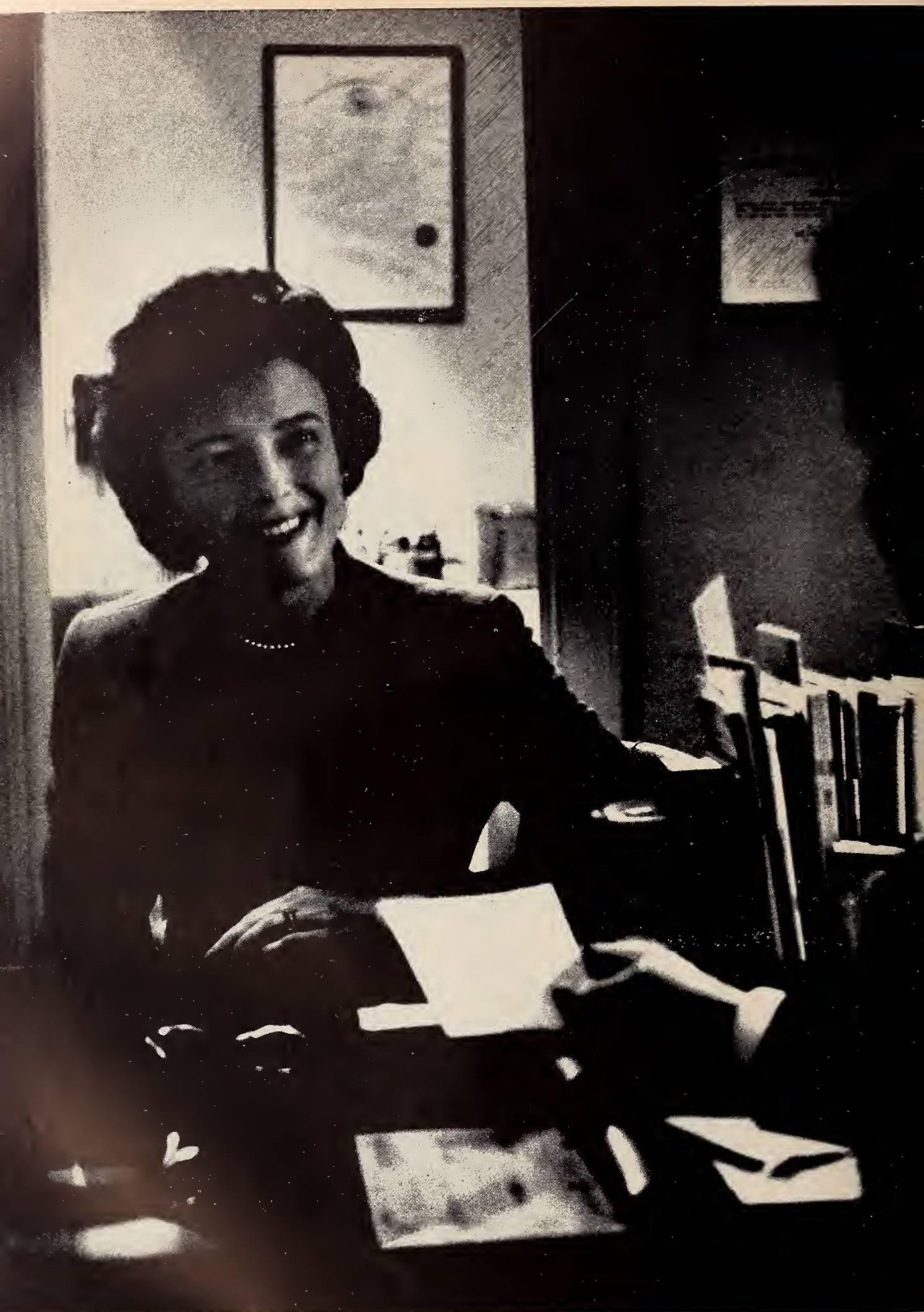


Medrol hits the **disease,** but spares the **patient**

upjohn

Upjohn Company, Kalamazoo, Michigan

*TRADEMARK, REG. U. S. PAT. OFF.—METHYLPREDNISOLONE, UPJOHN



"Much better– thank you, doctor"

Proven in research

1. Highest tetracycline serum levels
2. Most consistently elevated serum levels
3. Safe, physiologic potentiation (with a natural human metabolite)

And now in practice

4. More rapid clinical response
5. Unexcelled toleration

COSA-TETRACYN*

GLUCOSAMINE-POTENTIATED TETRACYCLINE

CAPSULES
(black and white)
250 mg., 125 mg.
(for pediatric or long-term therapy)

ORAL SUSPENSION
(orange-flavored)
125 mg. per tsp. (5 cc.)
2 oz. bottle

NEW! PEDIATRIC DROPS
(orange-flavored) 5 mg. per drop, calibrated dropper,
10 cc. bottle

COSA-TETRASTATIN*

glucosamine-potentiated tetracycline with nystatin

Antibacterial plus added protection against monilial super-infection

CAPSULES (black and pink) 250 mg. Cosa-Tetracyn (with 250,000 u. nystatin)

ORAL SUSPENSION 125 mg. per tsp. (5 cc.) Cosa-Tetracyn (with 125,000 u. nystatin), 2 oz. bottle

COSA-TETRACYDIN*

glucosamine-potentiated tetracycline-analgesic-antihistamine compound

For relief of symptoms and malaise of the common cold and prevention of secondary complications

CAPSULES (black and orange)—each capsule contains: Cosa-Tetracyn 125 mg.; phenacetin 120 mg.; caffeine 30 mg.; salicylamide 150 mg.; buclizine HCl 15 mg.

REFERENCES: 1. Carlozzi, M.: Antibiotic Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Antibiotic Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and leukemia, Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Antibiotic Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Antibiotic Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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me







AMERICAN DAIRY ASSOCIATION OF ARIZONA

dedicated to the health of Arizona's people

PREVENT
both cause and fear of
ANGINA ATTACKS

proven safety for long-term use



Miltrate*

NEW DOVETAILED THERAPY COMBINES IN ONE TABLET

prolonged relief from anxiety and tension with **MILTOWN®** — The *original* meprobamate, discovered and introduced by Wallace Laboratories

\+

sustained coronary vasodilation with **PETN** — pentaerythritol tetranitrate a leading, long-acting nitrate

"In diagnosis and treatment [of cardiovascular diseases] . . . the physician must deal with both the emotional and physical components of the problem simultaneously."[1]

The addition of Miltown to PETN, as in Miltrate,"...appears to be more effective than [PETN] alone in the control of coronary insufficiency and angina pectoris."[2]

Miltrate is recommended *for prevention* of angina attacks, *not for relief* of acute attacks.

Supplied: Bottles of 50 tablets.
Each tablet contains: 200 mg. Miltown + 10 mg. pentaerythritol tetranitrate.
Usual dosage: 1 or 2 tablets q.i.d. *before meals* and at bedtime.
Dosage should be individualized. *For clinical supply and literature, write Dept.*

1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:*504, Dec. 1957.*

CML-7186

WALLACE LABORATORIES, *New Brunswick, N. J.*

*TRADE-MARK

to relieve edema of

DIURIL® "....."

CHLOROTHIAZIDE

FINNERTY, F. A., Buchholz, J. H. and Tuckman, J.: J.A.M.A. **166**:141, Jan. 11, 1958.

DIURIL (Chlorothiazide) given alone to 85 patients, ". . . caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria. . . . The average effective dose was found to be 1 Gm. per day by mouth. . . . The usually excellent response coupled with the absence of significant toxicity and lack of development of drug resistance makes chlorothiazide ideal for the prevention and treatment of toxemia."

DOSAGE: one or two 500 mg. tablets of DIURIL once or twice a day.

SUPPLIED: 250 mg. and 500 mg. scored tablets DIURIL (chlorothiazide); bottles of 100 and 1,000.

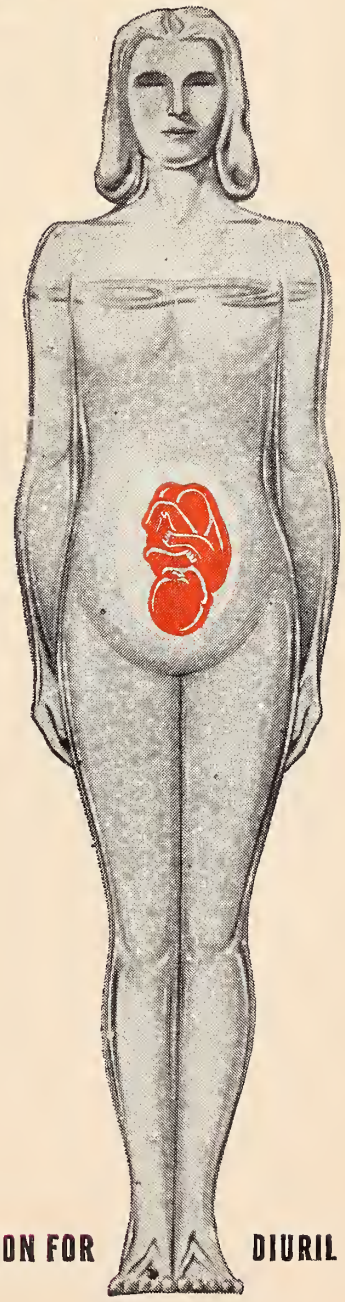
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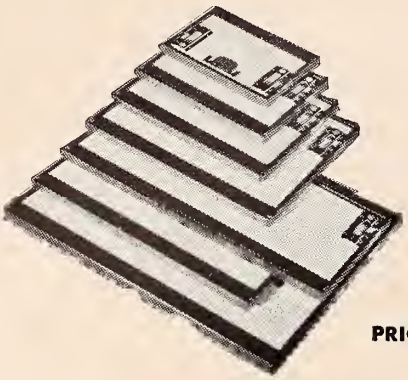
pregnancy

....caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria...."



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL

G-E molded cassettes cost less— last far longer!



Molded-rubber frame cushions jolts, keeps front and back of cassette in *true alignment*. Built-in glass-fiber pad gently squeezes screens and film for uniform contact always. "Slide-easy" latches release at light finger pressure, resist accidental opening. Molded-rubber seal prevents entry of light. Exclusive rubber hinge — thoroughly proved in ½-million flexings that left it *bonded as firmly as at time of manufacture!*

PRICES: 5x7—$14.00 6½x 8½—$16.50 8x10—$18.00 11x14—$23.25 7x17—$23.50 10x12—$20.00 14x17—$25.25

Your one-stop direct source for the

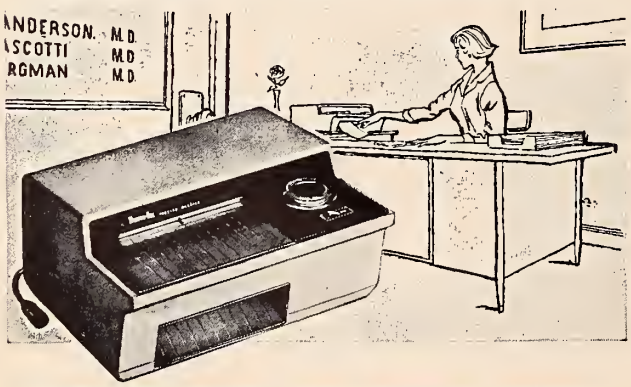
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apparatus . . . service . . . supplies

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Health Needs

Since 1908

Ryan-Evans DRUG STORES

Phoenix - Tempe - Globe - Miami - Superior

Casa Grande - Glendale

Wickenburg - Tucson

Now—All cold symptoms can be controlled

This new timed-release tablet provides:

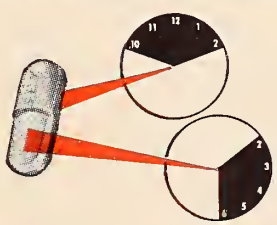
- ***...the superior decongestant and antihistaminic action of Triaminic***
- ***...non-narcotic cough control as effective as with codeine, but without codeine's drawbacks***
- ***...an expectorant to help the patient expel thickened mucus***
- ***...the specific antipyretic and analgesic effect of well-tolerated APAP***
- ***...the prompt and prolonged activity of timed-release medication***

Each* TUSSAGESIC *Tablet contains:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.;
pheniramine maleate	12.5 mg.;
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Also available:
for those who prefer liquid medication—
Tussagesic suspension
In each 5 ml.: Triaminic, 25 mg.; Dormethan, 15 mg.; terpin hydrate, 90 mg.; APAP, 120 mg.

Tussagesic timed-release tablets provide relief in minutes, which lasts for hours



first—3 to 4 hours of relief from the outer layer

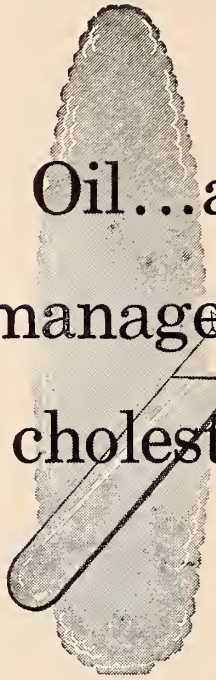
then—3 to 4 more hours of relief from the inner core

Dosage: 1 tablet in the morning, mid-afternoon, and evening, if needed. Should be swallowed whole to preserve the timed-release action.
Suspension: Adults—1-2 tsp. every 3-4 hours; Children 6-12 years old—1 tsp. every 3-4 hours; Children under 6—dosage in proportion.

NEW Tussagesic*

**Contains* TRIAMINIC *to* STOP *running noses*  *and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada



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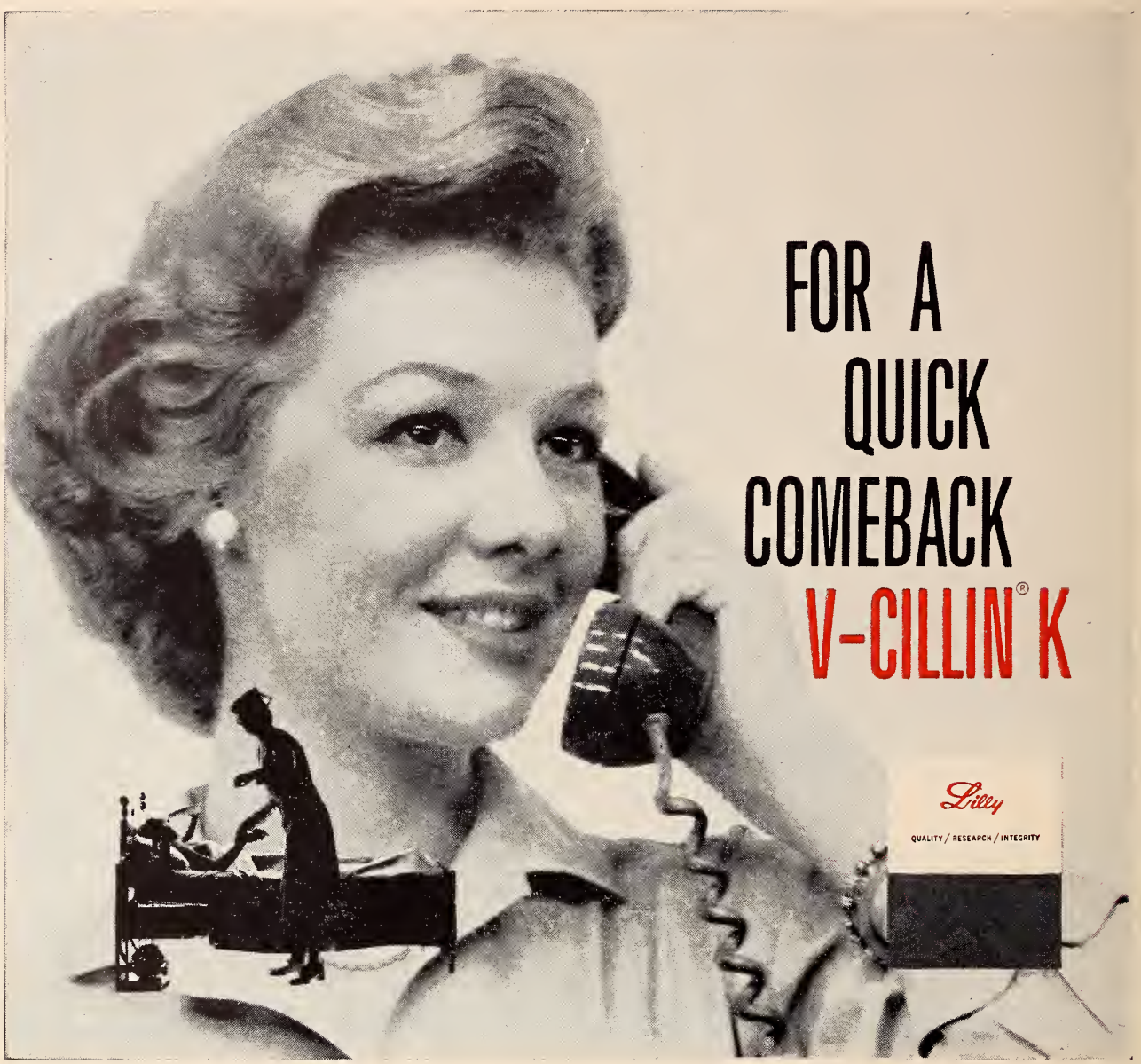
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Original Articles

IDIOPATHIC MYOCARDIAL HYPERTROPHY

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IDIOPATHIC myocardial hypertrophy is an unusual entity, characterized by cardiac enlargement and progressive cardiac failure in a previously healthy individual. Clinically, these patients exhibit a pattern characterized by palpitation, arrhythmias, peripheral embolization, sudden death or refractory congestive heart failure. The pathologic finding is invariably a marked hypertrophy of the left ventricle, with varying degrees of mural fibrosis and thrombosis, in the absence of coronary or valvular lesions. The disease affects mainly young adults. The course is usually rapid. There are no definite clinical or laboratory aids in the diagnosis. Since idiopathic myocardial hypertrophy is an entity that should be considered in the differential diagnosis of congestive heart failure of unexplained origin, it appears worthwhile to add another typical case to the 80 in the world literature.

CASE REPORT

A 33 year old, well-nourished, colored male was admitted to the Maricopa County General Hospital because of marked shortness of breath and swelling of the ankles. Three weeks previously he had noted a tight feeling in his chest, associated with cough and progressive dyspnea. Ten days prior to admission, swelling of both legs was noted.

Sixteen months previously, the patient had been admitted to the Phoenix Veterans Hospital because of severe chest pain and shortness of breath of two weeks' duration. The chest pain was aggravated by respiration. He had a cough productive of a blood-tinged sputum. Physical examination at that time revealed an acutely ill, dyspneic colored male, with temperature of 101.6, pulse 130, respirations 28, blood pressure 96 systolic and 76 diastolic, and weight 116 pounds. His maximum weight had been 140 pounds one year previously. He appeared toxic, orthopneic, but not cyanotic. There was dullness at the right base and left apex. Many moist rales were audible over these areas. The heart was not enlarged. No murmurs were heard. No thrills were palpated. The pulses were full, equal, synchronous and regular. X-rays of the chest revealed a pneumonic infiltration in the right middle and left upper lobes. The white blood count was 21,850 with 72 per cent neutrophiles, 13 per cent lymphocytes, and 2 per cent eosinophiles. Urinalysis revealed no abnormalities. He responded well to antibiotic therapy. At the end of the second day, his temperature became normal. After six days, his white blood count returned to normal. He was discharged from the Veterans Hospital after 20 days of hospitalization with a diagnosis of pneumonia, lobar, right middle, right lower, and left upper lobes, treated and cured.

His past history revealed no evidence of rheumatic or scarlet fever, hypertension, or syphilis.

Physical examination at the time of his first

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admission to the Maricopa County General Hospital revealed a well-developed, well-nourished, Negro male who was moderately dyspneic and orthopneic. His blood pressure was 98 systolic and 78 diastolic. The pulse was 120. The heart was enlarged to the left. A gallop rhythm was noted. A faint, soft systolic apical murmur was heard. The second pulmonic sound was accentuated. Moist rales were heard at the bases of both lung fields. The liver edge was palpated 6 cm. below the right subcostal margin.

Laboratory data: The hemogram and urinalysis were normal. The sedimentation rates was 9 mm. per hour. The ASO titre was 12 Todd units. Serologic test for syphilis was negative. Total protein was 6.4 gms. with a normal A/G ratio. Skin tests for tuberculosis and coccidioidomycosis were negative. Sputum examinations for acid-fast bacilli were also negative. Blood cultures revealed no growth. Serum cholesterol was 286 mgm. per cent. The serum protein bound iodine was 6.0. Two weeks after entry, the white blood count rose to 17,300, with a hemoglobin of 16.3 mgm., hematocrit of 55, and a differential count revealing segs 73, bands 1, basophile 1, lymphocytes 22, and monocytes 3. The erythrocyte sedimentation rate rose to 45 mm. per hour, and the ASO titre to 50 Todd units. One week later, the ESR was 18 mm. per hour, and the hemogram returned to normal. Fluoroscopy and x-rays with barium swallow revealed a diffuse cardiac enlargement. There was no evidence of a pericardial effusion. X-ray of the chest revealed a hazy linear patchy density in the right lower lobe, which was interpreted as representing a pneumonitis with a pleural effusion. Repeated electrocardiograms on several occasions were interpreted as abnormal with left ventricular hypertrophy, sinus tachycardia and nonspecific T wave changes.

Hospital course: The patient was at first treated for congestive heart failure. During the latter part of the second week, when his temperature rose to 103°, he was given antibiotics with a dramatic response. The patient was discharged after three weeks of hospitalization, with a probable diagnosis of acute myocarditis secondary to pulmonary infection.

Second admission: Three months later, he was readmitted because of increasing shortness of breath, pain over the left chest and ankle edema. The blood pressure was 90 systolic and 70 diastolic. The pulse was 96. The jugular veins were distended. The thyroid gland was normal. The heart on auscultation revealed a gallop rhythm and a faint systolic apical murmur. Basal rales were heard bilaterally. The liver edge was 6 cm. below the costal margin. Ascites was noted. A four-plus pitting edema of the legs was present.

Laboratory data: Urinalysis and routine blood counts were normal. The serum proteins by electrophoresis were interpreted as normal. LE cell preparations were all negative. X-ray of the chest revealed progressive pulmonary congestion with right pleural effusion. The heart was persistently enlarged with predominance to the left. Left ventricular hypertrophy and strain were interpreted in the serial electrocardiograms.

Further laboratory data during his second period of hospitalization: Transaminase 56 units. VDRL negative. Uric acid 6.7 mgm. per cent. Sedimentation rate 23 mm. C reactive protein positive. PBI 5.2. Cholesterol 275 mgm. Bilirubin direct 0.35 mgm., total 0.74 mgm. Hemoglobin determinations ranged between 14.6 and 16.7 gms. Electrophoretic studies of the serum proteins were normal. Prothrombin times were from 27 to 40 per cent of normal plasma concentration.

Hospital course: The patient remained in the hospital for two months. His condition deteriorated progressively with refractory congestive heart failure. During the latter part of his illness, therapy was supplemented with Prednisone and Prednisolone, but no benefit was observed. He became weaker and more dyspneic. One day before death, the blood pressure fell to levels which could not be determined. Levophed was given intravenously. He expired on the 57th hospital day.

The autopsy, performed by Dr. Thomas Jarvis, is reported as follows: "The body was that of a normally developed, normally nourished, Negro male appearing approximately the stated age of 33 years, 65 inches (166 cm.) in height, and weighing 165 pounds. The neck and thorax are symmetrical, and the abdomen distended and fluctuant. No cervical, axillary or inguinal lymphadenopathy is seen; extremities are within normal limits.

The thoracic cavity reveals a pleura which is moist, glistening, and appears somewhat thickened. Approximately 200 cu. cm. of fluid is seen in each pleural cavity, and there are edema-

tous adhesions obliterating the pleural cavity over the right lower and middle lobes, with fine fibrous adhesions scattered over the remainder of the right and over the entire left pleural cavity, easily broken. The pericardial cavity contains approximately 5 cu. cm. of clear fluid, the pericardium being moist, glistening, translucent and with a whitish surface.

Heart: The heart weighs 640 gms. The epicardial surface is smooth and of a light red-brown. The heart is grossly dilated, the right ventricle measure 3 mm. in thickness, and the left ventricle 15 mm. in thickness. In the left ventricle, there is a thrombus measuring 3 x 7 cm. and 1 cm. in thickness, firmly adherent to the ventricular wall and anterior surface of the septum.

Lungs: The right lung weighs 1100 gms., and the left 800 gms. Each lung is dark red, markedly congested with abundant fluid, easily expressed by pressure. The lungs are quite firm to palpation. The pleura is a mottled red and black, translucent and smooth. The vessels and bronchi show normal architecture with distention of the vessels. The bronchi are filled with frothy fluid.

Abdominal cavity: The peritoneum is moist, glistening, smooth and translucent with no adhesions. There is normal distribution of the abdominal organs and approximately two liters of clear yellow fluid are contained in the abdominal cavity.

Spleen: The spleen weighs 75 gms., shows red-blue surface and dark red cut surface, and a moderate amount of material is scraped away by the knife edge.

Adrenals: The adrenals measure approximately 2 x 3 x ½ cm., are in normal location, show good cortical medullary definition, and golden-yellow cortex with gray medulla.

Kidneys: The right kidney weighs 210 gms., and the left 190. The capsule shows no thickening and strips with ease, leaving a smooth red surface. The cut surface shows cortex 4 mm. in thickness, with good cortical medullary definition and no gross abnormality of calices, pelves, or ureters.

Liver: The liver weighs 1860 gms., is light brown, smooth, firm surface, and some blunting of the inferior margin. The cut surface is firm and of nutmeg color and pattern.

Microscopic:

Heart: Sections of the heart show a chronically inflamed and organizing endocardial thrombus. The myocardium itself shows evidence of hypertrophy due to alternating sizes of muscular fibers and large square nuclei. Otherwise the heart is not remarkable.

Lung: Sections of the lung show severe edema, generalized fibrosis, and focal emphysema with many heart failure cells in the alveoli with discreet acute and chronic bronchopneumonia.

Liver: Sections of the liver show a very severe central congestion with focal degeneration and necrosis.

Kidney: The kidney shows preservation of normal architecture, with fading of cellular markings, suggesting a recent infarction.

The remainder of the organs revealed no significant abnormalities.

Final anatomical diagnoses were as follows:

(1) Myocardial hypertrophy (650 gms.)
(2) Cardiac dilatation, marked.
(3) Anasarca, marked.
(4) Adhesions of pleura, right lower lobe of lung.
(5) Renal infarct, recent.
(6) Endocardial mural thrombus, left ventricle.

DISCUSSION

The world literature revealing some 80 reports of patients that satisfy the criteria for a diagnosis of idiopathic myocardial hypertrophy has been recently reviewed by Spodick and Littman(4). This curious entity was first described in 1901 by Josserand(1). Since then, it has remained an enigma to the clinician and pathologist as well (2, 3, 4). Excluded from this discussion of idiopathic myocardial hypertrophy is any case which shows evidence of a significant pre-existing hypertension, advanced coronary arteriosclerosis, lues, rheumatic fever, aortic regurgitation, glycogen-storage disease, myocardial fibrosis, aortic hyperplasia, beri-beri heart disease, thyrotoxic heart disease, amyloid disease and definite evidence of subendocardial fibrosis.

It is, of course, easier to describe idiopathic myocardial hypertrophy in terms of what it is not, than in its clearly defined positive manifestations. Idiopathic myocardial hypertrophy usually affects the younger age group. Most of the cases occur between the 3rd and 4th decades of life. Close to 90 per cent of those affected occurred under the age of 50. Another fairly typical aspect of the disease is its clinical course.

This is characterized by its intractibility. Congestive heart failure is usually associated with such complications as pulmonary embolism, or an arrhythmia. The progress of the disease once initiated is inevitably progressively downhill, ending in a fatal termination. About half of the patients survive less than a year from the onset, and about two-thirds are dead within two years of the time of onset. Postmortem examination inevitably discloses a large heart, weighing anywhere from 400 gms. to 900 gms. Over 90 per cent of the hearts available for weighing were in excess of 500 gms. Most fell into the range of 450 to 650 gms. The single striking pathological finding was myocardial hypertrophy principally of the left ventricle. There is no evidence of valvular disease or coronary artery disease. The disease seems to have predilection for males. The figures reported from the United States indicate almost 30 per cent of the cases occurring in Negroes. Most of the cases reported, where the occupation was determined, were manual laborers.

There is no definite clear-cut clinical picture in idiopathic myocardial hypertrophy to differentiate it from other cardiac entities which it may simulate, such as coronary heart disease, pericarditis, myocarditis, or any of the other specific etiologic entities mentioned previously. Dyspnea is the most common complaint. Other symptoms are palpitation, chest pain, cough, swelling of the ankles, and right upper quadrant distress, all evidence of congestive heart failure.

Laboratory determinations are not helpful in delineating this entity. X-rays and fluoroscopic examinations of the chest reveal generalized cardiac enlargement, particularly left ventricular hypertrophy. Electrocardiographic patterns, although abnormal, are not specifically diagnostic. Electrocardiographic changes reveal nonspecific T wave abnormalities, delayed ventricular conduction defects, such as left bundle branch block, intraventricular block; arrhythmias are not uncommon, such as supraventricular paroxysmal tachycardia, auricular fibrillation and flutter, auricular tachycardia, and paroxysmal ventricular tachycaria. Evidence of left ventricular hyptertrophy or strain is quite common on electrocardiographs. Nonspecific T wave changes and left bundle branch block are the most common abnormalities noted. It is interesting that right bundle branch block thus far has not been reported.

The vast majority of cases reveal a systolic blood pressure of 120 mm. mercury or less, and a diastolic pressure between 75 and 90. The pulse pressure is usually small, as was noted in our case. Absence of retinopathy and changes in the renal arterioles are features in all cases. Over half of the cases reveal either clinical or pathological evidence of embolization. The high incidence of pulmonary and systemic embolization is related to the constant finding at postmortem of mural thrombi affecting either the left ventricle or both ventricles. This feature too was noted in our case.

The physical findings of patients with idiopathic myocardial hypertrophy are those of marked enlargement of the heart, usually to the left, associated with evidence of congestive heart failure. Our patient revealed a soft apical murmur. This has been observed in the majority of cases(8). Other murmurs, such as apical diastolic rumble and systolic blow, diastolic murmurs, presystolic rumble and loud mid-diastolic apical murmurs have been described(4). Precordial pain and palpitation are not infrequent complaints. Arrhythmias are common. Although the most common clinical course is that of progressive refractory congestive heart failure, sudden death at any time may occur. Sudden death may be due to either pulmonary embolism or to a ventricular arrhythmia.

The most common pathologic observation was that showing endocardial and mural thromboses with varying degrees of mural and interstitial fibrosis. In about half the cases, there is subendocardial fibrosis with or without mural thrombi. Thomas and his associates(5) in their study of many of the same cases of cardiac hyptertrophy emphasize endocardial fibro-elastosis as the etiologic factor. They arbitrarily divide the 20 cases of heart disease of obscure etiology, which they studied, with the pathological finding of endocardial fibro-elastosis, into three age groups, (1) infantile, under 2 years of age; (2) childhood, 2 to 16 years of age; and (3) adult, over 16 years of age. They propose a congenital etiology for the adult group, in spite of the lack of specificity of fibro-elastosis and the time lag between birth and the onset of symptoms because the hearts are morphologically identical with those in the earlier age groups.

Pathologic physiology: A great number of

theories have been advanced for the mechanism of cardiac hypertrophy. Thomas(5) proposes the following possible explanation: (1) The thickened endocardium interferes with proper contraction and relaxation of the heart in much the same way as a thickened pericardium does in constrictive pericarditis. The clinical resemblance to constrictive pericarditis is sometimes very striking. However, instead of revealing a small left-sided chamber, as described in infants, most cases reveal chambers that are markedly dilated. (2) That the thickened endocardium interferes in some way with the proper conduction of contraction impulses. This would explain why many cases reveal various arrhythmias or delayed conduction defects or both. However, this cannot be definitely substantiated, at this time. (3) The thickened endocardium interferes with blood supply to the underlying muscle. The presence of myocardial fibrosis in some cases supports this theory. However, the absence of fibrosis in others suggests that this is not the only factor. Another theory (6, 7) is that hypoxia and intraventricular stasis following decompensation result in subendocardial necrosis, producing endocardial thrombi and thebesian vein thrombosis. The latter is thought to precede and account for the foci in mural and subendocardial fibrosis. These changes initiate a vicious cycle(4).

The antemortem diagnosis of idiopathic myocardial hypertrophy is a difficult matter, and is usually made by exclusion of all known etiologic forms of heart disease. Various murmurs, anginal pain, arrhythmias, and other electrocardiographic abnormalities may lead the clinician to diagnose valvular or coronary heart disease. The association or precedence of a febrile state in some cases leads to the diagnosis of myocarditis of some form. The most common antemortem diagnoses that have been made, as in our case, are those of rheumatic heart disease, myocarditis, arteriosclerotic heart disease, myocardial infarction, beri-beri heart disease, constrictive pericarditis, pericardial effusion, amyloid, neoplastic, and glycogen-storage disease.

Idiopathic hypertrophy of the right heart, a disease mainly seen in females and associated principally with right heart failure, cyanosis, pulmonary hypertension and electrocardiographic evidence of right ventricular strain, with or without right atrial enlargement and right bundle branch block, is not to be confused with idiopathic myocardial hypertrophy. Metabolic and nutritional disturbances, such as glycogen-storage disease, thiamine deficiency, potassium deficient diets, East African endomyocardial necrosis, collagen disease, and South African cardiovascular collagenosis, are not factors in the etiology of this entity.

SUMMARY

A report of a case satisfying the criteria of idiopathic myocardial hypertrophy in a 33 year old Negro is described. This curious disturbance of the heart most commonly affects young adult males in the third and fourth decades of life, with a predisposition for the Negro race, and is characterized by left ventricular hypertrophy, an accelerated clinical course of progressive refactory congestive heart failure in previously healthy individuals. The characteristic pathologic findings, in addition to left ventricular hypertrophy, are mural thrombi and fibrosis. Coronary artery disease and valvular lesions are notably absent. Sudden death may occur due to either embolism, which is a frequent occurrence related to the necropsy finding of mural and endocardial thrombi, or due to ventricular arrhythmia. The etiology of idiopathic myocardial hyptertrophy is unknown. There are no characteristic clinical or laboratory findings.

Idiopathic myocardial hypertrophy should be considered in the differential diagnosis of all cases of refractory congestive heart failure, particularly in young adults.

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RECENT ADVANCES IN THE TREATMENT OF THE LEUKEMIAS AND LYMPHOMAS

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IN RECENT YEARS, most of the papers appearing in medical journals on the subject of treatment of the leukemias and lymphomas have dealt with the results of therapy with various new chemotherapeutic agents. This has tended to create the impression that radiation therapy is old-fashioned if not actually obsolete. A critical analysis of the published data fails to support such an impression. There is little evidence that any of the new chemotherapeutic agents will produce more complete or more prolonged remissions than can be achieved with radiation therapy in most cases of Hodgkin's disease, lymphosarcoma, chronic lymphocytic leukemia and probably in chronic myelocytic leukemia. Radiation therapy is the basic form of treatment which should be tried first in the majority of cases of malignant lymphoma.

It is only in the management of the acute leukemias that various new chemotherapeutic agents are unequivocally superior to radiation therapy. These words of caution should not be interpreted to mean that we do not use nitrogen mustard, triethylene melamine, Myleran and other agents. These forms of therapy are extremely valuable under certain conditions, but their role in the management of patients with malignant blood dyscrasias to the exclusion of radiation remains to be defined.

X-ray therapy can be given in the form of small doses of general body spray irradiation, or larger doses of x-ray can be directed to specific areas involved by the disease. There can be no doubt but that local x-ray therapy is the most effective method of destroying the diseased tissue in massively enlarged lymph nodes, spleen, or liver in the malignant lymphomas and chronic leukemias. If a single node or mass of nodes in, for example, the neck or one axilla is the only demonstrable area of involvement by the disease and the patient has no systemic symptoms, local x-ray therapy is clearly the treatment of choice. Even when several areas are involved, local x-ray therapy to each mass of nodes is the most effective method of shrinking the nodes and relieving the patient's symptoms.

Radioactive phosphorus therapy has proved to be quite effective in the treatment of the chronic leukemias. The rationale of this treatment is based on the fact that when radioactive phosphorus is injected intravenously or is given by mouth, the isotope is selectively deposited in the bone marrow and a high percentage of the radioactive element is incorporated into the phosphorus-containing nucleoprotein material of new cells in the bone marrow, as they are formed by cell division. One can thus achieve a certain amount of selective irradiation of the bone marrow with relatively little irradiation of normal tissue not infiltrated with leukemic cells. During the last five years, as the newer chemotherapeutic agents have come into wide use, the percentage of patients with chronic leukemia treated with radioactive phosphorus has decreased considerably, but there is at present no convincing evidence that the long term results with these chemotherapeutic agents will be significantly better than has been obtained in the past with radioactive phosphorus. Such comparative studies are in progress.

Role of Nitrogen Mustard

Historically speaking, the first group of chemotherapeutic drugs which proved to be of real value in the control of the malignant blood dyscrasias were the nitrogen mustards. These drugs have been found to exert a specific nucleotoxic action by interfering with chromosome mechanisms and mitotic division in a manner somewhat analogous to the effect of x-rays. The susceptibility of cells to the lethal effects of the mustards is related in general to the rate of cellular multiplication, and presumably this explains, at least in part, the vulnerability of the bone marrow, the lymphatic tissues, and the mucosa of the gastrointestinal tract.

The toxic effects of nitrogen mustard include immediate gastrointestinal effects and delayed depression of bone marrow function. The nausea and vomiting which come on from 30 minutes

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to one hour after the drug is administered is apparently due to a central effect of the drug on the vomiting center in the brain. The delayed marrow depression with resultant leukopenia and thrombocytopenia reaches a maximum approximately three weeks after administration of the drug.

Nitrogen mustard is now used primarily in the treatment of Hodgkin's disease and lymphosarcoma. Indications for such treatment include those cases which have become "x-ray fast," patients in whom repeated courses of x-ray therapy to a single area have produced severe trophic skin changes verging on necrosis which preclude further external radiation therapy, and the management of those fairly numerous patients who have disseminated Hodgkin's disease with weakness, fatigue, anorexia, fever without massive localized lymph node enlargement, and frequently, leukocytosis and anemia. The clinical response of such patients to mustard therapy is often dramatic, but the beneficial effects tend to be of briefer duration than the remissions which can be induced with radiation therapy in the more localized forms of the disease.

Several hundred compounds chemically related to nitrogen mustard have been prepared and screened for therapeutic effectiveness. Nitrogen mustard undergoes a very rapid ethylenimonium transformation in the body, with the almost immediate release of the active moicty of the compound. In contrast to this, with such drugs as triethylene melamine and triethylene phosphoramide, a very much slower chemical reaction occurs and the active moiety is released very gradually over a considerable period of time. As a result of this, some of these compounds can be given by mouth and the drug is then absorbed into the blood stream before significant release of the active moiety occurs. TEM thus has the advantage that it can be given orally and it causes less severe nausea and vomiting than nitrogen mustard. TEM is used mainly in the treatment of Hodgkin's disease, and lymphosarcoma, although some hematologists have used this drug widely in the management of chronic lymphocytic leukemia. In our experience, the results of therapy with TEM have not been as consistently good as with nitrogen mustard, and the depressant effect of this drug on the bone marrow is just as great, although it appears at a later date.

Three compounds are available which have some beneficial effect in chronic myelocytic leukemia. These compounds are Urethane, Demecolcin, and Myleran. Myleran is a sufonic acid ester and appears to be the most effective agent. It is available in 2 mg. tablets and the usual starting dose is 6-8 mgms. a day by mouth. Within 10 days, the leukocyte count usually begins to fall, and within three or four weeks the count may be restored to normal. The dosage must be decreased as treatment is continued. Excessive doses cause marrow hypoplasia and cytopenia. The chief advantages of Myleran are its ease of administration and its inexpensiveness.

Myleran and Chlorambucil

Myleran produces excellent remissions in chronic myelocytic leukemia, and many hematologists feel that this drug is the treatment of choice in this type of leukemia. The immediate results of Myleran therapy on chronic myclocytic leukemia are roughly comparable to those which can be accomplished with radiation therapy, but many years of careful follow-up study of large numbers of patients treated with Myleran will be necessary before the complications of such therapy and the effect on the duration of life can be evaluated and its proper role assessed.

Chlorambucil (CB 1348), or Leukeran, is another chemotherapeutic agent which appears to have significant value in the treatment of malignant blood dyscrasias, particularly chronic lymphocytic leukemia. This drug was developed during the course of a large scale investigation of a large number of nitrogen mustard derivatives in the aromatic series. These aromatic mustards are alkylating agents, and it was discovered that those compounds in this series which are biologically active induced, to a marked degree, the cytologic changes which are recognized as characteristic of the nitrogen mustards, such as chromosome "breakage," gross disorientation in the mechanics of mitrosis, and, not infrequently, great increase in cell size.

One may make an interesting comparison of the effect of x-irradiation, Myleran and chlorambucil on the peripheral blood. Whereas x-ray depresses the lymphocytes, neutrophiles and red blood cells, Myleran has relatively little influence on the lymphocytes and about the same effect as x-ray on the granulocytes. On the other

hand, chlorambucil has only a transient effect on the neutrophiles and influences the lymphocytes in an almost identical fashion as x-ray: if you superimpose the effects of these two drugs, the result simulates that of ionizing irradiation.

Our present experience with chlorambucil indicates that this drug will induce remissions in a high percentage of patients with chronic lymphocytic leukemia; its relatively selective "lympholytic" effect minimizes its usefulness in myelocytic leukemia.

During the last 30 years, there has been considerable progress in making patients with acute leukemia more comfortable, although the survival time is still distressingly short. Up until 1948, the improvement in prognosis was due to the greater use of blood transfusions and the increasing availability of antibiotics. Since then there has been some further progress due to the introduction of ACTH, cortisone, and other related steroids, and such "antimetabolites" as 6-mercaptopurine and the folic acid antagonists.

The most recent evidence suggests that the folic acid antagonists, which are chemically closely related to, but not identical with, folic acid, act by blocking the conversion of folic acid to folinic acid. Apparently white blood cells, and particularly leukemic leukocytes, are more dependent on folinic acid for their metabolism and multiplication than are most other cells of the body, and thus their growth is selectively inhibited. It is important to remember, however, that the folic acid antagonists block an essential enzyme system, and other normal cells are definitely damaged. These drugs are very toxic, including such effects as stomatitis, diarrhea, gastrointestinal hemorrhage, and severe pancytopenia.

The folic acid antagonists produce remissions in a much higher percentage of cases of acute leukemia occurring in infants and children than in adults. Remissions, when they occur, are distressingly short in duration, usually lasting from a few weeks to several months, although remissions lasting several years have been observed.

6-Mercaptopurine

In 6-mercaptopurine or Purinethol we have an analogue of the nucleic acid constituent, adenine and the purine base, hypoxanthine. Microbiological studies have shown that 6-mercaptopurine is, in fact, an antagonist of hypoxanthine and adenine. Its mode of action is therefore different from that of the structural analogues of folic acid. 6-MP interferes with nucleic acid biosynthesis just as folic acid antagonists interfere with the enzymatic action of folic acid. This drug is available in 50 mg. tablets and at present its use is recommended primarily in acute leukemia. 6-MP is given orally and the initial dose in adults is from 150 to 200 mg. per day. The toxic effects are chiefly leukopenia and thrombocytopenia. There is a delayed action, and therefore therapy must be discontinued before the white blood cell count drops to too low a level. However, really satisfactory and prolonged remissions are rarely obtained unless treatment is pushed to the point of producing moderate or even severe leukopenia. Nausea, vomiting and anorexia are quite uncommon, but may occur.

It is the consensus among hematologists at the present time, that 6-mercaptopurine is approximately as effective, but considerably less toxic, than the folic acid antagonists, and this drug should, therefore, be used first. It is our practice to use folic acid antagonists in the treatment of acute leukemias, only after 6-mercaptopurine has failed to produce a remission, or has finally become ineffective.

Time does not permit a discussion of the role of other forms of therapy in the management of patients with malignant blood dyscrasias. The judicious use of steroids in the alleviation of hemolysis and thrombocytopenia and their application as oncolytic agents are subjects which cannot be covered adequately at this time. The potential use of bone marrow heterotransplantation remains to be defined, and at present must be considered an experimental rather than therapeutic approach to these diseases. An extensive investigative program is currently being carried out in many medical centers over the country under the auspices of the Cancer Chemotherapy National Service Center of the U. S. Public Health Service in an attempt to screen and evaluate clinically new agents which may be useful therapeutic tools: much progress has been made but the challenge remaining is clear.

THE ROLE OF THE AMERICAN MEDICAL ASSOCIATION IN DISASTER PLANNING*

By Frank W. Barton, Secretary,
Council on National Defense, American Medical Association

CONSIDERABLE progress has been made by professional groups in acquainting their membership with the medical problems incident to disaster, in teaching the basic principles of scientific emergency medical care, and in fostering a sense of responsibility for participation with other groups in planning and training for disaster. For nearly 13 years, the American Medical Association has been actively concerned with these problems and has taken a number of significant steps in the solution of some aspects of disaster medical care.

To be specific, it was on Dec. 5, 1945 that the AMA board of trustees appointed a committee on military medical service that, among other things, was charged with making a study of emergency medical service during war or grave national emergency. As the scope and responsibility of the medical profession in the event of future war became clearer in focus, it was evident to members of the house of delegates of the association that it was essential to create a standing committee of the board of trustees, and today the council on national defense is one of nine standing committees of the board. Established by the house of delegates in 1947, the council's authority and responsibility, in the broadest terms, pertain to (1) military medical affairs, and (2) civil defense matters.

The council's activities in the field of medical preparedness for disaster include assistance to state and federal civil defense authorities, as well as the department of defense, the army, navy, air force, and the U. S. Public Health Service, with medical and health problems, and acts as a liaison with allied health agencies regarding personnel, facilities and materials needed in time of war or national emergency. In sponsoring an educational program on the medical aspects of civil defense, the council helps physicians to prepare themselves for the management and care of mass casualties which would result from an atomic, biological, or chemical attack. The council collects, prepares, and distributes general and technical information in this field for both civilian and military use. The council maintains close and constant liaison with the Federal Civil Defense Administration and often works with established relief agencies, such as the American National Red Cross, and industrial groups in planning disaster relief programs.

In 1950, a full-time secretary was appointed to the council and the activities of the council were devoted largely to the initiation of civil defense programs both within and without the medical profession. *The council has felt strongly that it is incumbent upon the medical profession to exert forceful and dynamic leadership in the civil defense program of the nation at the national, state, and local levels.* It has also realized that the individual members of the medical profession at the community level would bear the brunt of first initiating and later operating any medical civil defense program that would be established. At the urging of the council, civil defense or emergency medical service committees have been established in all of the state medical associations.

In 1950, the council recommended and the house of delegates approved a resolution urging the immediate strengthening of federal and state civil defense programs. That resolution was sent to the President of the United States and to the governor of each of the states and territories. Each year since 1950, the council, in one way or another, has focused attention of our top national leaders on the urgent need for more effective civil defense leadership and active participation at the national level.

The council has sponsored national medical civil defense conferences during or preceding the annual sessions of the AMA since 1953. These have been valued means of keeping leaders in state, regional, and local civil defense organizations abreast of developments in the field. At the first such conference, there was an attendance of 80, and at the one held in June 1957 in New York City, more than 276 physicians and

*Presented at the Second 12th Naval District Symposium on Medical Problems of Modern Warfare and Civil Disaster at the U. S. Naval Radiological Defense Laboratory, San Francisco 24, California., June 19, 1958.

others from 36 states, Hawaii and Canada were in attendance. That program was devoted to the medical aspects of the hazards and effects of lethal radiation and radioactive fallout.

Meetings and Publications

In addition to these conferences, the council sponsors a yearly two-day county medical societies civil defense conference which is designed to help local medical and health personnel plan their work in civil defense and disaster situations. In addition to panel discussions on planning, support, and resources for disaster situations, participants are divided into workshop groups to consider practical problems based on preassumptions as to the extent and type of casualties and the estimated available personnel, facilities, and supplies to manage and care for them. These conferences are held in Chicago each year in November.

The council publishes and distributes a bimonthly *Civil Defense Review* which is mailed to more than 1,300 individuals and organizations concerned with medical civil defense affairs. A bibliography of published civil defense material and a package library service has been developed for those interested in additional information. Three publications dealing with the planning and organizing for radiological defense, and a series of 10 articles were published in the *Journal of the American Medical Association.* Later, these latter articles were reprinted in booklet form and more than 1,000 copies of these booklets have, on request, been distributed. During 1954-1955, a series of six articles was sponsored by the council and appeared in the *Journal* dealing with the problems likely to be encountered by physicians in civil defense. These were also reproduced in booklet form and have been distributed to 1,700 national, state, and local civil defense officials and to physicians interested in medical civil defense affairs.

In this brief period, it is not possible to cover in detail the numerous activities of our council and its committee on civil defense. I do want to refer to two or three other important activities. In 1955, the council was represented on a joint committee to plan a testing program of the FCDA 200 bed civil defense emergency hospital. In co-operation with the other national medical and health groups, a critical field testing of the hospital was recommended for the purpose of assisting the FCDA with the development of manuals and instructions on how to set up, staff, and operate the unit. Field tests were conducted at Fort Meade, Md. on April 10-12, 1956 and at Brooke Army Medical Center on June 18-22, 1956 by army medical corps personnel. As a result of these tests, a number of valuable recommendations was submitted by 17 analysis teams, representing civilian professional groups and government services, to the FCDA for review and appropriate action.

The committee on civil defense has scheduled its future meetings in each of the seven FCDA regions to meet with representatives of the state medical societies, women's auxiliaries to the state medical societies, and other local representatives to receive and exchange first-hand reports concerning regional and state activities in the medical civil defense field. Our first such regional meeting was held in Atlanta in October 1957, and it was enthusiastically endorsed by medical representatives from Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee. There is a definite need for better co-ordination of medical civil defense activities between national, state, and local groups. We at the national level want to know what is being done at the community level and how we can be of more assistance to these groups, and they should know what we are doing in a like manner. In other words, we should have a two-way street of information and co-operation. Although we will settle for that at the present, the stress must eventually be widened into an expressway.

CD Research Program

Following a request from the Federal Civil Defense Administration, the AMA Board of Trustees, on Feb. 9, 1957, authorized the council to proceed with a research program and initiation of a plan of study to establish criteria for the provision of medical care of the surviving population, casualty and noncasualty, in the event of an enemy attack on this nation.

The development of a plan for the care of the surviving population and the problem of public health and environmental sanitation that will be present in the event of enemy attack on this nation is a tremendous project involving many varied and complex problems. The association agreed to assume this unique and challenging task, realizing that the medical profession and, more specifically, *individual physicians would have the burden and final responsibility to fulfill the medical and health requirements in time*

of a grave national emergency.

The formal contract for this project was signed on July 26, 1957 and the cost, estimated at $150,000 is being financed by the Federal Civil Defense Administration. A commission on a national emergency medical care plan, under the general direction of the council, has been established to initiate, plan, and direct the project. This six-member commission is composed of Drs. Harod C. Lueth of Evanston, Ill., and Carroll P. Hungate, of Kansas City, Mo., representing the Council on National Defense, and Drs. John F. Burton of Oklahoma City, and Robert L. Novy of Detroit, representing the AMA Council on Medical Service. The other two physician members selected from the geographical area in which the field study will be made are Drs. Hanns C. Schwyzer, of St. Paul, Minn., and Karl R. Lundeberg, of Minneapolis.

A meeting of the commission was held on July 28, 1957 to consider the selection of a study site area, a briefing by the FCDA as to the scope and purpose of the project, and the selection of a full-time staff director for the commission.

The commission selected the St. Paul-Minneapolis site, indicating that a 100-150 mile radius in this area would be desirable as a representative area in which to conduct the study. It was felt that this noncoastal area would present a number of problems which would be found in other sections of the country, and that the findings of the study would be of practical use and adaptation by other sections. The Minnesota State Medical Association has approved the study project and is greatly pleased to assist and otherwise participate. The commission named Dr. Earle Standlee, of Dallas, Texas, as its staff director.

The study project has been divided into two distinct phases. One phase is devoted to the field study in the Minneapolis-St. Paul area. That involves a comprehensive and critical review of the planning, training, and organizational plan of the Minnesota medical civil defense program. In addition, a paper test exercise is being conducted based upon certain attack assumptions with an estimated casualty load and damage appraisal. This involves the problem of matching all available medical resources (personnel, equipment, and supplies) against the total medical requirements resulting from the attack.

The second phase of the study project is broader in scope and application. It involves the study and recommendations for an organizational plan which will result in the optimum of medical care, the utilization and training of professional and nonprofessional personnel, and the outline of basic emergency medical care principles, including the sorting of casualties in the event of enemy attack on this nation.

Three task forces have been established to assist with the specific problems in the second phase. National health and medical organizations which would be directly involved in the management and care of mass casualties have designated representatives to serve on these task forces.

Where Do We Go From Here?

Up to this point, I have covered some of the activities and accomplishments of the American Medical Association and its council on national defense with respect to medical preparedness for disaster. To me, the important question is — where do we go from here and what should we do?

We all realize the urgent need for increased participation by the medical profession, including all medical and health groups, to their community responsibility in time of war or national disaster. These groups will most certainly have to assume these responsibilities and be ready and adequately prepared when the time comes. Much more remains to be done, and many more physicians and other health personnel alike will have to participate actively.

I am of the definite opinion that more emphasis should be placed on medical programs to cope with natural disasters. In the past few years, our civilian population has experienced an increasing number of devastating natural disasters. Six Northeastern states were seriously flooded in 1955. Widespread fires, wrecks, explosions, tornadoes, and other disasters have occurred in all parts of our country. All of these disasters have left in their wake millions of dollars in damage to homes and other property. The extent of deaths and the casualties they produced has been also quite large. We have all seen or read about local communities and even large geographical areas that floundered under the impact of widespread destruction accompanied by extensive casualties and loss of life.

Natural disasters were responsible for more than a third of the deaths in catastrophes — accidents in which five or more persons died — during 1957, it is reported by statisticians of the Metropolitan Life Insurance Company. Catastrophe deaths in the United States totaled almost 1,700 during the year, or about 400 more than in 1956. The increase is largely a reflection of the unusually heavy loss of life in Hurricane Audrey, which caused about 350 known deaths in early June — most of them in Cameron, La. All five of the major catastrophes (those which caused at least 25 deaths) occurred in he first six months of the year. In addition to the hurricane, the others were: The fire which destroyed a home for the aged at Warrenton, Mo., on Feb. 17, causing 72 deaths; the May 20 tornado which struck the Kansas City area, killing 39; a gas explosion which killed 37 in a coal mine near Bishop, Va., on Feb. 4; and the March blizzard which killed 29 in the Great Plains states. Because of the heavy toll in the hurricane, the loss of life in natural disasters was the highest in nearly 20 years.

Retrospectively, many costly but important lessons have been learned as a consequence of these awful disasters. We know now that the communities that had adequate medical and hospital disaster plans were prepared to cope speedily with the disaster, and more effectively and efficiently than the communities without adequate plans. Those with partial or incomplete plans, although inadequate, fared better than the communities without any plans or preparations whatever. These disasters have proved to be a valuable lesson. They have clearly demonstrated the paramount need for pre-planning and preparedness. They have shown that physicians, hospitals, and other paramedical personnel must co-operate and function as a team. They have shown that a team plan requires close co-ordination and integration. They have shown that a team needs leadership in supervision and direction.

Strengthening The Program

I strongly believe that we must have increased participation by the federal government in medical disaster and civil defense programs. The federal government should provide greater emphasis to the instructional and educational phases of the medical aspects for civil defense preparedness. It is essential that increased financial assistance be furnished. I am confident that the "public apathy" attitude, which it seems has spilled over into the medical profession, can be overcome. The physicians of this country will respond when they fully appreciate their basic responsibilities and are offered a positive and well co-ordinated program. It is high time we commence to tie together the numerous un-co-ordinated medical plans which, in some instances, are in direct conflict with each other and do not even enunciate the same professional language.

Surplus federal property, wherever appropriate, should be turned over to FCDA and state civil defense organizations for use for civil defense purposes. In April 1956, the council went on record to request congress to approve pending legislation on this subject.

It might be wise to consider the volunteer system of civil defense personnel as outdated. Thought must be given to some system for the payment of full and part-time personnel trained and available for use in disasters and in time of national emergency. This, to me, is not impractical, particularly, in view of the current demands upon our professional and skilled personnel. The use of virtually a total volunteer system in long-range civil defense planning or even short-time operation is unrealistic and fails to recognize its basic weakness.

It doesn't seem proper to me to place the major responsibility of civil defense operations upon the local levels and allow these localities to falter and shift for themselves. If necessary, compulsory measures must not be overlooked and, if needed, directions must be channeled from the top down. As a simple illustration, why would it not be practical to require completion of basic first-aid courses for all persons licensed to drive an automobile or other vehicle? Each state could establish a program whereby a driver's license would not be issued until the person had completed his course. This is only one of many ideas that could be adapted to a practical nation-wide training program.

This is the challenge to the medical profession and the responsibility of each individual physician. The medical profession has always met the challenges in the past. The physicians in this country will again measure up to the leadership responsibilities and participation expected of them.

A REVIEW OF CESAREAN SECTIONS FROM 1953 THROUGH 1957 AT ST. JOSEPH'S HOSPITAL, PHOENIX, ARIZ.

By Robert C. Evans, M.D.
Phoenix, Ariz.

THIS review was undertaken to determine the changes occurring over the period of the last five years with particular reference to maternal morbidity and fetal morbidity and mortality. The review shows that at St. Joseph's Hospital, for the five year period ending Dec. 31, 1957, there were a total of 20,645 mothers delivered. Of these, 593 were by cesarean section for an overall cesarean section rate of 2.9 per cent (Table 1).

Cesarean Section Rate

Table 1

	1953	1954	1955	1956	1957	Total
Number of Mothers Delivered	3,394	3,794	3,942	4,400	5,115	20,645
Cesarean Sections	109	110	113	116	145	593
Cesarean Section Rate (%)	3.2	2.9	2.8	2.6	2.8	2.9

This has been a fairly stable percentage rate, with the delivery rate, rising only slightly more rapidly than the cesarean sections. The cesarean sections were divided into two categories, those having primary cesarean sections, and those having repeat cesarean sections.

The age groups (Tables 2 and 3) show that for the primary cesarean section group, the largest percentage (26.7) were in the 21 to 25 year age group. There were only 16 patients over the age of 41 and one under the age of 15. The patient under 15 was a primigravida whose indication for cesarean section was cephalopelvic disproportion. Of those over 41, seven were primigravidas, three had had one previous child, and one each had two, three, four, nine, 12 and an unknown number of children.

Indications in this age group included, three for cephalopelvic disproportion and two elderly primigravidas with breech presentations. There were two indications of premature separation of the placenta, one, the patient with an unknown number of children, and one a primigravida. Two diagnoses of placenta previa were made, one a para four and the other a para 12. There were three indications of uterine inertia occurring, one a primigravida, one para one and a para three. An indication of transverse lie in a para two, fetal distress with twins in a para 11, malpresentation in a para one, and spondylolisthesis in a para one were also made in patients over 41 years old. The greatest number of repeat cesarean sections occurred in the 21 to 30 age group (55.6 per cent). There were only five women over 41 years old. One had had one previous section, three had had two previous sections, and one had had an unknown number of sections. There were two indications (for the initial cesarean section) of cephalopelvic disproportion, one, a para four with an unknown number of previous sections, and one a para two with two previous sections. There was one indication which was considered as mental occurring in a para seven with two previous cesarean sections. There was one indication of a placenta previa in a para two with one previous section, and an indication of toxemia in a para two with two previous cesarean sections.

An attempt was made to calculate a cesarean section rate among primary sections and repeat sections; however, this was found to be highly inaccurate because many of the parities were not recorded and indeed, in 1953, none of the parities were recorded. Therefore, the primary section rate of 6.25 per cent is only an approximation, as is the repeat cesarean section rate of 1.6 per cent.

Tables 4 and 5 relate the parity of the patients with the primary and repeat sections respectively. As would be expected, the greatest percentage of primary sections occurred to pri-

Table 2
Age and Primary Sections

	1953	1954	1955	1956	1957	Total	%
Under 15		1					0.3
15-20	4	7	11	10	14	46	13.2
21-25	14	18	23	18	20	93	26.7
26-30	22	13	13	15	15	78	22.4
31-35	12	15	15	14	14	70	20.1
36-40	10	8	6	5	15	44	12.6
41-45	4	1	2	6	3	16	4.7
Total	66	63	70	68	81	348	
% *	#	6.3	6.6	6.0	6.1	6.25	

Table 3
Age And Repeat Sections

	1953	1954	1955	1956	1957	Total	%
	0	0	0	0	0		
	3	1	2	3	3	12	4.9
	11	18	8	14	17	68	27.8
	11	9	19	12	17	68	27.8
	12	12	10	11	14	59	24.0
	4	6	4	7	12	33	13.5
	2	1	0	1	1	5	2.0
	43	47	43	48	64	245	
	#	1.7	1.4	1.5	1.7	1.6	

*Approximate percentages of total primigravidas or multiparas (all parities were not recorded).
#Parities not recorded this year.

migravidas (61.5 per cent) and well over half (52.6 per cent) of repeat cesarean sections were done on women who had had one previous child. It is interesting to note the indications for primary cesarean sections in the greater parity group. Of the para sixes, the indications included a malpresentation, cervical stenosis, and a prolapsed cord with twins. The indications for cesarean sections were: the para seven, a transverse lie, the para eight, a premature separation of the placenta, the para nine, a fetal distress with twins, the para 12, a placenta previa, and on the two unknown parities, a premature separation and a placenta previa. Indications for first sections in the repeat section groups included, in the para six group, two patients with one previous cesarean section, one with an indication of premature separation of the placenta (patient hemorrhaged prior to this section, also) and the other for extensive cervical repair. One patient had had four previous cesarean sections with the primary indication of cephalopelvic disproportion. One patient had had two previous sections with a primary indication of diabetes. Of the two para sevens, one had a mental indication and had had two previous cesarean sections, and one had one cesarean section for malpresentation. The para eight's indication was malpresentation with two previous cesarean sections. The para nine had had one previous cesarean section for placenta previa. The two unknown parities both had unknown indications for an unknown number of sections.

Gestation in cesarean sections in this series was calculated from the date of the last menstrual period. As would be expected, this is somewhat inaccurate and many of the patients with 40-week plus gestations were actually at term. It is interesting to note in the repeat section category (Table 7) that the majority of the cesarean sections were scheduled in the 39th week of gestation. Slightly fewer (29 per cent) were scheduled in the 38th week, and only 55 (22.5 per cent) were allowed to reach term. Indications for primary sections in the early gestational period (Table 6) include in the 34-week group, a primagravida with toxemia and diabetes, and a para three and para four each with a placenta previa. The 32-week group includes, a primigravida with toxemia, a para one with malpresentation, and a para six with a premature separation of the placenta. In the 30-week group are a primigravida with a transverse lie and

Table 4
Parity and Primary Sections

	1953	1954	1955	1956	1957	Total	%
o	42	37	38	45	52	214	61.5
i	9	10	14	9	12	54	15.5
ii	7	4	6	4	7	28	8.0
iii	4	3	7	1	3	18	5.2
iv	1	4	2	6	2	15	4.3
v	1	3	2		4	10	2.8
vi	1	1			1	3	0.9
vii				1		1	0.3
viii		1				1	0.3
xi				1		1	0.3
xii			1			1	0.3
Unk.	1			1		2	0.6

Table 5
Parity and Repeat Sections

	1953	1954	1955	1956	1957	Total	%
o	1	1	1		2	5	2.0
i	20	33	19	27	30	129	52.6
ii	10	10	7	9	20	56	22.8
iii	5	2	6	5	5	23	9.4
iv	4	1	3	3	3	14	5.7
v	1		3	2	2	8	3.3
vi			2	1	1	4	1.6
vii	1		1			2	0.9
viii					1	1	0.4
xi				1		1	0.4
UNK.	1		1			2	0.9

Table 6
** Gestation and Primary Sections

Weeks	1953	1954	1955	1956	1957	Total	%
40+	15	13	16	31	37	112	32.1
40	26	25	22	16	16	105	30.1
39	10	9	8	8	9	44	12.6
38	3	7	11	4	5	30	8.5
37	4	3	3	5	4	19	5.5
36	2	2	5	3	5	17	5.0
35	3	1	3		3	10	2.8
34	1	1	1			3	0.9
32	1		1		1	3	0.9
30		1		1		2	0.6
29					1	1	0.3
28	1	1				2	0.6

Table 7
** Gestation and Repeat Sections

	1953	1954	1955	1956	1957	Total	%
40+	1	1	1	1	5	9	3.7
40	16	11	9	12	7	55	22.5
39	8	10	16	14	27	75	30.6
38	13	14	12	14	18	71	23.0
37	5	5	3	6	5	24	9.8
36		2	2			4	1.6
35		2				2	0.8
34		2		1		3	1.2
31					1	1	0.4
Unk.					1	1	0.4

Table 8
Pelvic X-Ray

	1953	1954	1955	1956	1957	Total
No	94	91	92	90	125	492
Yes	15	19	21	26	20	101
%	22.7	30.0	30.0	38.2	24.7	29.0

Table 9
Number of Multiple Sections

	1953	1954	1955	1956	1957	Total
2	30	35	31	33	43	172
3	7	9	3	8	15	42
4	5	2	4	2	3	16
5		1	3	3	2	9
6			1	2	1	4
7				2		2
Unk.	1		1			2

**Gestation as calculated from L.M.P.

toxemia, and a para one with placenta previa. The 29-week gestation is a para one, who had a transverse lie with premature rupture of the membranes. The 28-week group includes a para one with transverse lie and premature rupture of membranes, and a para four with placenta previa. Indications for the original sections in the repeat section group include, in the 36-week group, a para one with one previous section for toxemia, another para one with one previous section for cephalopelvic disproportion, a para three with two previous sections for achondroplasia, and a para four with one previous section for extensive cervical repair. In the 35-week group are two para ones with one previous section for cephalopelvic disproportion (one of these also had diabetes) and a para five with one previous section for diabetes. In the 31-week gestation period is a para two with one previous section for a cephalopelvic disproportion, and the unknown gestational period was on a 16-year-old girl who had had one previous section for a cephalopelvic disproportion.

Table 8 shows that only 101 of the 593 patients had pelvimetry films made prior to the section for a percentage of only 29 per cent. Some of these x-rays were made in the cases of placenta previa to diagnose that entity, but the majority were done to confirm a diagnosis of cephalopelvic disproportion.

Table 9 is of interest, showing the large number of women having two or more cesarean sections and, indeed, two patients each have had seven.

Table 10 shows the types of anesthesia used in the cesarean sections done at this hospital. Well over 90 per cent of our cesarean sections are done under spinal anesthesia. Many of these are supplemented, after the baby is delivered, with intravenous, short-acting barbiturates to allow the patient to sleep through the remainder of the operation. Twenty of our patients received short-acting barbiturates as the initial anesthetic, then requiring nitrous oxide and muscle relaxant administration immediately after the baby was delivered to allow the operative procedure to proceed without difficulty. Eighteen of our patients received cyclopropane induction and these, too, were switched to a less potent anesthesia for the remainder of the operation.

Table 10
Types of Anesthesia

	1953	1954	1955	1956	1957	Total	%
Spinal	96	99	104	107	133	539	90.8
Sodium Pentathal	1	5	1	5	8	20	3.2
Cyclopropane	3	4	6	3	2	18	3.0
Local	4	2		1	1	8	1.4
and Apinal	2					2	0.4
and Pentathal	1				1	2	0.4
and Cyclopropane			1			1	0.2
Nitrous Oxide	1					1	0.2
Ether	1					1	0.2
Spinal and Cyclopropane			1			1	0.2

The indications for the use of barbiturate anesthesia were numerous. Of the 20 patients, 10 were primary sections, and 10 were repeat cesarean sections. Of the 10 primary sections, two were for premature separation of the placenta, one for placenta previa, two for traverse lie with premature rupture of the membranes, three for uterine inertia, one for a patient who had had a previous cerebral vascular accident, and one for cephalopelvic disproportion. Of the 10 patients receiving barbiturates for repeat sections, one had a ruptured uterus with a stillborn infant.

Of the 18 patients receiving cyclopropane, 15 were for primary sections. The indications included one for premature separation of the placenta, six for placenta previa, one for toxemia with cephalopelvic disproportion, four for cephalopelvic disproportion, one for spondylolisthesis, one for cephalopelvic disproportion with a hydrocephalic baby, and one for prolonged labor. Of the eight patients receiving only local anesthetic, five were for primary sections. One of these for placentia previa, one for a Bandl's constricting ring, one for a hip deformity, one for a pelvic deformity, and one for ankylosis of the spine.

The remainder of the anesthesias included on two patients the use of spinal anesthesia with local anesthesia, one on a primigravida with uterine inertia, and one on a third repeat cesarean section. Two patients received local anesthesia supplemented by barbiturates, one for a repeat section on a patient who had previous hip surgery, and one on a primigravida whose fetus was in distress. The local infiltration was made by the obstetrician while awaiting the arrival of the anesthetist. The patient receiving local anesthesic supplemented by cyclopropane was a para one who was undergoing her primary section because of severe bladder trauma occurring during the delivery of her first child. The one patient receiving nitrous oxide anesthesia was a multipara undergoing her first cesarean section for premature separation of the placenta. She was in shock when taken to the

surgical suite and required no more than nitrous oxide for the operation. The patient receiving ether was a primigravida who had prolapsed the fetal cord. The patient receiving a spinal supplemented by cyclopropane, was a primary section on a para three for transverse lie (the spinal anesthetic was not successful and the cyclopropane was required for the operation).

Table 11
Types of Incisions

Abdomen	Uterus	1953	1954	1955	1956	1957	Total	%
Midline	Midline	74	67	63	54	62	320	54.0
Midline	Transverse	28	19	31	44	58	180	30.4
Transverse	Midline	1	7	4		2	14	2.4
Transverse	Transverse	5	4	4	11	13	37	6.2
Mayland	Midline		1	1	1		3	0.5
Mayland	Transverse		8	9	1		18	3.0
Retroperitoneal						3	3	0.5
Classical		1	2		4	1	8	1.4
Cesarean hysterectomy			2	1	1	6	10	1.6

Table 11 shows the variety of incisions used for the cesarean sections done in this hospital. Well over half of the surgeons preferred a midline abdominal incision with a midline low cervical uterine incision. About one third of the patients received a midline incision in the abdomen with a transverse lower uterine segment incision. There seems to be an increasing use of this technique in the past year or two. A transverse incision in the abdomen and a midline incision in the uterus was used in a very few patients, while a transverse incision in both the abdomen and uterus was used in only 37 patients. Again this technique has been used more in the last two years. The transverse incision through the skin and anterior rectus fascia with a sectioning of the recti muscles (Maylard incision) was used in a few instances, mostly with a transverse incision in the uterus, and only three times with a midline uterine incision. Three retroperitoneal sections were done in 1957, two on primary sections and one on a third repeat section for an unknown cause. One of the primary sections was for fetal distress on a patient with one previous child, and one was for uterine inertia on a patient having three other children. The patient with fetal distress had had premature rupture of her membranes for several days prior to the section, and had an amnionitis at the time of operation. The other two retroperitoneal cesarean sections were done, not because the situation indicated that this technique was necessary, but were done to show the resident staff the technique of retroperitoneal cesarean sections, as this technique is only rarely used in this era of antibiotics. Only eight classical cesarean sections were done in the last five years, seven of them as primary cesarean sections, and one on a repeat cesarean section. The latter was on a para four at 38 weeks gestation with five previous cesarean sections (the original one for cephalopelvic disproportion). Of the primary sections, four were on primigravidas, one had had one previous child, and three had had two previous children. One was done at 30 weeks gestation, one at 36 weeks, two at 38 weeks, and four at 39 weeks. The indications included previous soft tissue dystocia, toxemia, previous cerebral vascular accident, cephalopelvic disproportion, elderly primigravida with breech presentation, ankylosis of the spine, and a Bandl's constriction ring.

There were 10 cesarean hysterectomies done over the five-year period. Two of these were because of fibroid uteri, each occuring to a para two with two previous sections. Three of these cesarean hysterectomies were done for cervical stenosis, two on para fours with one previous section, and one on a para six with one previous section. One each were done for an original indication of placenta previa (on a para four with three previous sections), malpresentation (on a para nine with three previous cesarean sections), abruptio placentae with a placenta previa (on a para 10 with two previous sections), an unknown reason (on a para five with five previous sections) and on a para two with one previous section for a ruptured uterus with this pregnancy.

Table 12 shows the varied indications for cesarean sections during this five year period. There were 162 cesarean sections done prior to 1953 on patients requiring cesarean sections since Jan. 1, 1953. The indications for these are listed in the first column. There were 82 patients receiving cesarean sections in this hospital since 1953 who had had previous cesarean sections here in that period of time. Two hundred and fifteen sections were done for cephalopelvic disproportion with or without some other indication. This made it well over one-third of the patients (36.3 per cent). Most of the indications are self explanatory, although a few require clarification. There were no indications as to the source of the bleeding in those patients with an indication of hemorrhage of undetermined origin. The four patients listed under cervical

Table 12
Indications for Cesarean Section

	Prior to 1953	1953	1954	1955	1956	1957	Total	%
Repeat Sections *Prior to 1953		42	39	29	18	34	162	
Repeat Sections since 1953**			8	14	30	30	82	13.9
Cephalo-pelvic disproportion	62	19	20	22	24	29	176	36.3
with breech presentation	4	3	5	4	6	6	26	
with diabetes	1					3	4	
with premature separation	1						1	
with toxemia	2				3		5	
with prem. rupture of membranes	1						1	
with twins		1					1	
with possible ruptured uterus				1			1	
Uterine Inertia	13	4	5	3	4	6	35	6.8
with breech presentation	1	2	1				4	
with amnionitis			1				1	
Placenta Previa	12	7	10	10	11	7	57	10.2
with twins	1			1			2	
with premature separation	1						1	
Premature Separation of Placenta	5	5	3	5	3	5	26	4.4
Toxemia of Pregnancy	8	1	3	2	1	2	17	5.0
with fetal distress					1		1	
with diabetes	1	1		2		1	5	
with premature separation					1		1	
with transverse lie			1				1	
with breech presentation	1						1	
with twins				2			2	
with Bandles ring					1		1	
Transverse Lie	5	2	2	1	2	1	13	3.3
with bicornuate uterus				1			1	
with prem, rupture of membranes		1				5	6	
Malpresentation	1	1	1	1	3	3	10	1.7
Cervical dystocia	4	3	3		2	2	14	2.6
with breech presentation						1	1	
Fetal Distress		1				2	3	0.6
Prolapsed Cord	1	1		1		1	4	0.9
with twins						1	1	
Hemorrhage of undetermined origin	3			1	2		6	1.2
with diabetes	1						1	
Elderly Primip. with breech		3			1		4	11.2
Previous Hysterotomy	1						1	
Fetal Hydrocephaly	2	1					3	
Mental	3						3	
Previous Hip Surgery	1						1	
Failed Forceps		2	3	2			7	
Hip Deformity		1					1	
Spondylolesthesis		1				1	2	
Pelvic Deformity		1					1	
Extreem perineal scaring		1					1	
Fibroids	1		1				2	
with breech presentation		1	1				2	
Face presentation-chin posterior		2					2	
Double Uterus	2						2	
Previous Rupture of Uterus		1					1	
Stenosis of Cervix			1	1		2	4	
Convenience	1						1	
Previous C.V.A.			1				1	
Previous Myomectomy			1	1			2	
Recent fracture of pelvis			1				1	
Double cervix and vagina	1						1	
Severe Asthma	1						1	
Bandles Constriction Ring	1					1	2	
Diabetes	1				1	2	4	
with breech presentation					1		1	
Ankylosis, Lower extreemities	2				1		3	
with twins				1			1	
Bladder Damage with Previous Del.				1			1	
Rising Rh Titer				1			1	
Achondroplasia	1						1	
Previous Vaginal Plastic	1						1	
Extensive cervical Repair	1						1	
Obstructed Labor						1	1	
with breech presentation					1	1	2	
Hypertension with Inertia							1	
Suspected Tbc (1) Plac. Prev.(2)	1				1		1	
Soft Tissue Dystocia						1	1	
Large Baby	1						1	
Unknown ***	11						11	1.9

*or at other hospitals before or after 1953.
**Done in this hospital.
***Two Classical — One with Rupture (Poro with repeat) — One with Complications with repeat.

stenosis all acquired a stenosis from repeated cervical cauterization following previous vaginal deliveries. It is interesting to note that among the 11 patients having an unknown indication for previous or first cesarean section, two had classical cesarean sections, and that one of these required a cesarean hysterectomy on the second pregnancy for ruptured uterus, and the other developed complications following her second cesarean section.

Tables 13 and 14 relate to maternal morbidity over this five-year period, and some miscellaneous items related to the cesarean section. As can be seen from Table 13, over three-quarters of the patients (76.9 per cent) had no postoperative morbidity. Among the other 23 per cent, over half were febrile only (at least no diagnosis of the cause of the fever was indicated on the record). A fever of 100.6 degrees or under is listed separately, since on the maternity ward a postpartum fever is defined as 100.6 degrees or over for two or more consecutive days. (It was brought out in the discussion following the presentation of this paper at the staff meeting that the obstetrical definition of a post partum fever is usually 100.4 degrees or over. This being the case, the percentage of fevers would have been slightly higher than those recorded in this paper.) The most extraordinary temperatures recorded were those lasting five days or more including a five-day fever in a 36-year-old patient who was a para three and had a primary section for a transverse lie. The other five-day fever occurred in a 19-year-old primigravida whose cesarean section was done for cephalopelvic disproportion. The seven-day fever occurred in a 25-year-old patient on her first repeat section, who developed a wound infection. The nine-day fever occurred following a cesarean hysterectomy for cervical stenosis on a 35-year-old patient. The eight-day fever occurred in a 39-year-old patient on her first repeat cesarean section following a classical section. She developed a paralytic ileus postoperatively and perforated the cecum, necessitating reoperation and closure of the perforation.

The shock prior to the section occurred to a patient with a premature separation of the placenta. A postoperative shock (which is not recorded in the table) occurred also following a premature separation of a placenta. One patient developed cardiac failure following her third repeat cesarean section at the age of 24. Pneumonitis occurred in a 37-year-old patient having her first section for a placenta previa following four previous vaginal deliveries. Her temperature was recorded as 101 degrees for two days. Two patients eviscerated, one following a primary section for cephalopelvic disproportion using a midline incision in the abdomen, and a midline incision in the lower uterine segment. The other evisceration occurred in a 37-year-old patient who was having her second repeat cesarean section. Her temperature was recorded as 104 degrees for four days.

A pyelitis occurred to a 33-year-old patient following her fourth cesarean section with a recorded temperature of 100.8 degrees for one day. The wound infection previously mentioned occurred in a 25-year-old patient on her first repeat cesarean section. The paralytic ileus occurred in a 38-year-old patient on a primary section with an indication of cephalopelvic disproportion and a possible rupture of the uterus following two previous deliveries. Her temperature was recorded as 103 degrees for four days. The patient with the perforation was previously mentioned. Another patient not mentioned in the chart is one who developed convulsions following her cesarean section. She

Table 13
Maternal Morbidity

	1953	1954	1955	1956	1957	Total	%
Fever-Over 100.6 * for one day	12	11	12	11	11	57	9.6
for two days	12	10	10	5	3	40	11.9
for three days	1	2	2	2	4	11	
for four days	2		2	5	4	13	
for five days		1			1	2	
for seven days			1			1	
for eight days					1	1	
for nine days					2	2	
for ten days					1	1	
Shock prior to Op.	1					1	1.6
Cardiac Failure		1				1	
Pneumonitis			1			1	
Evisceration		1		1		2	
Pyelitis			1			1	
Wound Infection			1			1	
Ileus			1			1	
With perforation					1	1	
None	81	84	82	92	117	457	76.9

Table 14
Miscellaneous Items

	1953	1954	1955	1956	1957	Total	%
Vaginal Deliveries following section							
Term	1	5	2	3		11	2.2
Premature		1				1	
Beteewn sections			1			1	
Thin Scars (reported)		1		1	5	7	
"Hiatus"		1				1	
Apoplectic Uterus	1					1	
Dehisense of Ut. Scar				1		1	

*Using the obstetrical definition of post partum fever, (any temperature of 100.6° or over for two consecutive days) this line is separated from the others.

was 39 years old, a primigravida, and the indication for the section was uterine inertia. Among the miscellaneous items in Table 14, it is noted that we have a post cesarean section vaginal delivery rate of 2.2 per cent. This is somewhat low in that only the records of those patients receiving cesarean sections in this hospital were reviewed. There were probably many others who received cesarean sections elsewhere and who delivered vaginally at this hospital, whose records were not reviewed. Of the five patients requiring cesarean sections in 1954, one delivered vaginally in 1955 and four in 1957. Four of these patients required primary cesarean sections for placenta previa and one for fetal pelvic disproportion with breech presentation. Two patients had midline abdominal and midline uterine incisions, one had a midline abdominal and transverse uterine incision, and two had traverse Maylard incisions in the abdomen, and transverse incisions in the uterus (this was the same patient who subsequently delivered twice vaginally). Of the two patients requiring cesarean sections in 1955, one delivered in 1956, (with a primary section for toxemia and using a transverse Maylard abdominal incision and a transverse uterine incision) and one delivered in 1957, having her primary section for a premature separation of the placenta with a midline abdominal and a transverse uterine incision. Of the three patients requiring cesarean sections in 1956, all three delivered in 1957, two requiring cesarean sections primarily for placenta previa, one of these having a midline abdominal and a midline uterine incision, the other having a midline abdominal and transverse uterine incision (this patient sustained a temperature of 102 degree for four days following her cesarean section). The third patient had her cesarean section for premature separation of the placenta, using a midline abdominal and transverse uterine incision. The patient requiring cesarean section in 1953, subsequently delivered in 1955, her section being done for uterine inerita with breech presentation and using a midline abdominal and transverse lower uterine incision. The one patient who delivered a premature baby did so in 1955 following a repeat section for an unknown reason in 1954. One patient had a vaginal delivery between her cesarean sections, having her original cesarean section in 1951 for an unknown reason, delivering vaginally in 1953, and requiring a repeat cesarean section in 1955.

The one patient listed with a "hiatus" was a para four at term, receiving her fourth repeat cesarean section for cephalopelvic disproportion. The surgeon did not make clear what he meant by "hiatus," but apparently it was a separation of the uterine muscle leaving only the peritoneum over the scar and allowing the fetus to be seen through it. This patient had received midline abdominal and midline lower uterine incisions. The apoplectic uterus was recorded in 1953 on a 23-year-old patient who was a para two, having her primary section for premature separation of the placenta. She subsequently had a repeat cesarean section without difficulty during the prenatal period. One dehiscence of the uterine scar is recorded on a 37-year-old patient who was having her first repeat section after having had two children vaginally, and a primary section for uterine inertia.

Table 15 gives the fetal results for this series. Five hundred and forty-five of the babies delivered had no morbidity, another 18 were affected by various conditions and recovered. Among these entities were erythroblastosis, dehydration, prematurity, cerebral damage, atelectasis, ABO incompatability, cerebral edema, and nasal injury. Only a few of these conditions could be connected with the cesarean section. The dehydration may have been prevented by an earlier section or better preoperative care. Only two of the seven babies who were premature were from repeat cesarean sections. One was thought to be at 37 weeks, the other at term. The other five were for indications necessitating immediate surgery, including four for placenta previa, one for a transverse lie with premature rupture of the membranes, and one for mal-

Table 15
Infant Results

	1953	1954	1955	1956	1957	Total	%
Good	95	96	108	110	138	545	92.0
Erythroblastosis	1	1	1	1		4	
Dehydration	1					1	3.0
Prematurity	3	1			3	7	
Cerebral Damage	1					1	
Atelectasis		1				1	
ABO Incompatability		1				1	
Cerebral Edema				2		2	
Nasal Injury				1		1	
Stillborn	3	3	2		1	9	1.5
Expired	5	7	4	2	3	21	3.5
Prematurity	1	2				3	
Respiratory	2	2			1	5	
Erythroblastosis	1	1	1			3	
Congenital heart	1		1			2	
Muconeum aspiration		1				1	
Hyaline membrane		1	1		2	4	
Cerebral Anoxia			1	1		2	
Cerebral Hemmorrhage				1		1	

presentation. The baby with the cerebral damage was in a primigravida at term with a breech presentation and fetal pelvic disproportion. The atelectasis occurred in a baby following a cesarean section for a placenta previa. The cerebral edema occurred in one baby following a cesarean section for a placenta previa, and one for hemorrhage of undetermined origin. The nasal injury may have been prevented by earlier cesarean section, or possibly it occurred during the cesarean section.

In this series, we had a stillborn rate of 1.5 per cent. Among these, one was an anencephalic, two were hydrocephalic, one followed a uterine rupture, four after premature separation of the placenta, and one was in a diabetic mother. Of the 21 babies which expired following cesarean section (for an uncorrected fetal mortality of 3.5 per cent) only 10 could be somehow related to the cesarean section. This would reduce the fetal mortality rate to an actual rate of 1.6 per cent. Of the three babies who died of prematurity, all necessitated early section, one for a transverse lie with premature rupture of the membranes, one for placenta previa, and one for premature rupture of the membranes in a patient who had a previous cesarean section for cephalopelvic disproportion. Of those babies which died a respiratory death, one was a baby of 32 weeks gestation, the section being done for a premature separation of the placenta. The remaining three respiratory deaths may have been related to the cesarean section. One was a first repeat cesarean section following a section for malpresentation. Spinal anesthesia was used. The second was in a primigravida at term for toxemia with a transverse lie. The third respiratory death occurred following a repeat cesarean section for cephalopelvic disproportion in a 16-year-old patient who had had one previous cesarean section. The three deaths from erythroblastosis and the two from congenital heart disease could not be related to the cesarean section. The one death from meconium aspiration occurred following a trial of forceps and subsequent cesarean section for cephalopelvic disproportion. The baby was at term, and the mother was a primigravida.

The four babies dying of hyaline membrane disease all followed elective cesarean sections and, since hyaline membrane disease is considered to be a disease of the premature child, the estimated ages were apparently incorrect. The recorded gestation for them were, two at 37, one at 38, and one at 39 weeks, while the weights of these babies would indicate prematurity. One of the sections was for an indication of cervical stenosis, and three were repeat sections for cephalopelvic disproportion (one a third repeat cesarean section). Of the two babies dying of cerebral anoxia, one was a term infant whose mother was sectioned for an indication of diabetes, while the other was for an indication of premature separation at a gestational age of 37 weeks. This latter baby's death apparently was the result of the premature separation and not the cesarean section. The one baby dying of cerebral hemorrhage which occurred following a repeat cesarean section for uterine inertia, had a gestation of 38 weeks. The baby dying of post hemorrhagic shock which occurred following a cesarean section for placenta previa, had a gestation of 34 weeks, cyclopropane anesthesia was required and here again the baby's death was apparently the result of the placenta previa, and not the cesarean section.

Discussion

This paper was presented at a monthly staff meeting and several interesting points were brought out in the discussion which followed. Our cesarean section rate compares favorably with others across the country, being more conservative than that of the West coast. The indications, although varying in miscellaneous, odd single indications, are also comparable to those found elsewhere.

X-ray pelvimetry, as it was pointed out, is not used very often in the cases of obvious cephalopelvic disproportion, but in those borderline pelves where a longer trial of labor or a trial of forceps may be indicated. Clinical judgment is the most important factor in determining a disproportion.

With an increased incidence of lawsuits over spinal anesthesia, as well as some recent work done on the oxygen saturation of the blood following spinal anesthesia (which indicates that this is not the ideal anesthesia to be used in cesarean sections due to the decreased oxygen in the blood) it was brought out that maybe local injections should be used more often and/or induction anesthesia used on more elective-type sections. The poor results with barbiturate and cyclopropane anesthesia, when analyzed, show them to be due to the emergency situations under which they are used.

The type of incision does not seem to have any bearing on the outcome as long as it is low cervical. The incision with which the surgeon is most familiar works best in his hands. Another recent article indicates that results with classical sections are now camparable to those of low cervical. This, however, is still very much in dispute.

There were fewer major complications in our series than would be expected from any series of as many routine major surgeries. The study did point out a lack of diagnosis of postpartum fevers, or at least the charting of these diagnoses. The lack of mortality among the mothers, I believe, speaks for the rapidity in which we are able to get an emergency section done.

Our fetal results are very favorable with a corrected fetal mortality of only 1.6 per cent. Since our mortality with breech deliveries runs about 4 per cent it was pointed out that perhaps more of our breech presentations should be sectioned. Respiratory disorders seem to be our biggest problem and perhaps when more is known about the etiology and development of hyaline membrane disease, more of these can be saved.

Summary

1. A reveiw of 593 ccsarean sections over a five-year period is presented and analyzed.

2. Discussion resulting from this summary's presentation to the hospital staff is presented.

BOOK REVIEWS

DIAGNOSTIC MEDICAL PARASITOLOGY

by **Edward K. Markell**, M.D. and **Marietta Voge**. 276 pages. Illustrated. (1958) Saunders. $7.

A concise presentation of essential facts about protozoan, helminth, and arthropod parasites includes drawings, sketches and microphotographs carefully selected to stress points of diagnostic importance. The emphasis is on the practical rather than on encyclopedic coverage. The authors are from University of California, Los Angeles.

Stacey's Medical Books, San Francisco, Calif.

RECONSTRUCTIVE AND REPARATIVE SURGERY

by **Hans May**, M.D. 2nd ed. 115 pages. Illustrated. (1958) Davis. $30.

An outstanding text is revised to include important new sections on tissue transplantation, treatment of wounds and burns, reconstructive surgery of the face and extremities (especially hands), and the use of new antibiotics. The five divisions of the book cover general principles, regional features, and clinical examples.

Stacey's Medical Books, San Francisco, Calif.

ENDOCRINE PATHOLOGY OF THE OVARY

by **John McLean Morris**, M.D. and **Robert E. Scully**, M.D. 151 pages. Illustrated. (1958) Mosby. $8.50.

Drawing upon the experiences and records of many prominent men and centers in this country and abroad, and upon items of a large bibliography, the authors relate pathologic changes in the ovary to the accompanying clinical endocrine effects. Numerous photomicrographs complement the detailed descriptions.

Stacey's Medical Books, San Francisco, Calif.

FRACTURES AND OTHER INJURIES

edited by **Edwin F. Cave**, M.D. 863 pages. Illustrated. (1958) Year Book. $28.

Massachusetts General and Harvard have restored our pride. In spite of the many good fracture books by Americans, it almost seemed that if top authority was needed we had to refer to either English or Austrian authors. The format, material, presentation, and editorial ability represented in this new book are at the highest level. The whole field of injury, not limited alone to bone and joint, is included as well as excellent studies in rehabilitation, anesthesia, organization of fracture services, and all the other problems associated with injury. This is 25 years of group experience in a great clinic.

Stacey's Medical Books, San Francisco, Calif.

HANDBOOK OF MEDICAL TREATMENT

by **Milton J. Chatton**, M.D., **Sheldon Margen**, M.D., and **Henry Brainerd**, M.D. 6th ed. 569 pages. (1958) Lange. $3.50.

Readers of these reviews will have noted that no volume is tagged a "must" book. Here, however, is one that every practicing physician ought to have in his bag, a wonderful compendium of concise and useful information. It would be a bargain at twice its price. All three authors are associated with the University of California School of Medicine, San Francisco.

Stacey's Medical Books, San Francisco, Calif.

SPORADIC AND ATYPICAL ENCEPHALITIS IN ARIZONA

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RECENTLY throughout various scattered areas of the Southwest there appear to have occurred sporadic outbreaks of encephalitis, some atypical, some apparently identifiable as previously known strains. These do not appear to have taken the form of epidemics, but certainly have been present in greater than usual numbers. The present paper is designed to inform the physicians of Arizona of the occurrence of what appears to be an increased number of encephalitis patients, both typical and atypical in this region.

Three or four patients coming to our personal knowledge have been males, aged approximately 55 to 65 years. One of these had previously been a rather high hypertensive, a second an essentially healthy man, the third a mild hypertensive suffering from chronic rheumatoid arthritis and recurring gastric ulcer. The fourth possible case was a boy.

Onset in one of these cases was extremely insidious. The day prior to illness, the patient remarked about feeling particularly well save for a slight sleepiness. On the following morning, his wife was unable to rouse him and when observed, was found to have a rectal temperature in excess of 108 degrees, to be totally comatose and unresponsive to all stimuli, and to exhibit questionable Babinski reflexes, otherwise being areflexic. His moderate hypertension rapidly dropped to blood pressure levels approaching shock (about 90 systolic) but following intensive steroid therapy and very large doses of antibiotics, he appeared to make a rapid recovery and was dismissed as apparently cured on his eighth hospital day.

The second patient noted an onset of a mild degree of chilliness with what appears to have been slight mental confusion and a dysmetria. His usual hypertensive level of approximately 200 mm mercury systolic continued. Physical findings were in all respects at the outset negative. It is notable that neither in this nor in the first case was headache a presenting symptom. This patient ran a moderately febrile course, responding to antibiotic and corticosteroid therapy, the latter being initiated when the blood pressure fell to levels less than 150. This patient appears to present a residual mental defect, and at the present writing continues hospitalized.

The third adult patient exhibited onset of mild visual disturbances and fever. This patient is continuing at this time to make an apparently uneventful recovery.

The spinal fluid in the first reported case was in all respects negative save for a pressure of 270 mm of H_2O. The second patient exhibited 30 lymphocytes per cubic meter spinal fluid, later rising to 50 cells, the other findings being not particularly striking, save for an elevation of pressure to approximately 250 mm. The third patient exhibited spinal fluid findings compatible with encephalitis and consisting of 50 cells per cubic mm. Serological tests in these patients have not been completed. The first individual was considered at one time also to have been a possible case of a transitory basilar artery thrombosis. In view of the presence of the others of undoubted encephalitic origin, the possibility of encephalitis as explanatory for the first case must also be given serious consideration. The status of the fourth case, the youth, remains as yet undetermined.

Comment

Four cases are presented of presumptive encephalitis, possibly atypical in form. It is suggested that the physicians of this area be aware of an apparently increased incidence of this disease. It is of particular interest that the wife of the first patient reported that a few days prior to onset of his illness a mosquito had been seen biting him on the bare back. Mosquitoes of a type capable of carrying encephalitis were isolated in the vicinity of the home of the second case reported. No contact with horses on the part of any of these individuals is noted, nor were any other members of their families or direct contacts with them in any way affected.

Summary

Four cases of presumed encephalitis are presented and the apparent increase in incidence of the disease in this part of the country is noted. The possibility of insect vectors is noted.

One case reported by courtesy of Dr. Bernard Pasternack.

Editorial Page

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The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good Englisb, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while heing thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, douhle spaced, and the original and a carbon copy submitted.
6. Articles for publication should have heen read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
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The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

SPECIALTY BOARDS

THE COMMENTS on the role of the specialty boards in the paper by Dr. Russell Myers, reprinted from Perspectives in Biology and Medicine in the last issue of *Arizona Medicine,* have needed airing for some time. Dr. Myers's dim view of the departure of specialty examining boards from their original commitments is shared by an increasing number of physicians. It is noteworthy that "boarded" physicians are in the forefront of objectors. The spectacle of highly competent physicians, their competence attested by continuous top-notch performance in actual practice as well as by the respect of their critical colleagues, failing to pass the oral examination given by the Board of Internal Medicine raises serious doubt as to the validity of the examination. How far have the boards wandered from their primary task of examining and determining the qualifications of individual candidates who wish to be recognized as specialists in fact? Dr. Myers reveals some information about attitudes and motivations and "self-sealing doctrines" that prompts some of us to turn our board certificate to the wall.

C. R.

EDITOR'S NOTES

SYMPOSIUM ON CANCER OF THE COLON AND RECTUM

American Cancer Society
Scientific Session
October 1958

I. *Pathogenesis of Cancer of the Colon and Rectum:*
Dr. Elson B. Helwig.

THIS PAPER reviewed the morphologic and histologic evidence showing the relation of adenomatous polyps to carcinoma of the rectum.

One thousand four hundred and sixty colons were examined. Adenomatous polyps of the large intestine are usually true neoplasms and not a reaction secondary to a diffuse inflammatory process. Ulcerative colitis does not precede the adenomatous polyp, but carcinoma of the colon is more common in patients with ulcerative colitis.


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Most carcinomas of the colon develop in adenomatous polyps, but some carcinomas arise directly from the mucous membrane. Adenamatous polyps and carcinoma of the large intestine show similar sites of predilection and both are common in older age groups. Approximately 45 per cent of them occur in the sigmoid and rectum, with the rest of these lesions being rather evenly distributed through the remaining segments of the large bowel.

As to the age distribution, 2 per cent to 3 per cent occur prior to the age of 30, and then 10 per cent each 10 year period from 30 to 70, with 20 per cent occurring in each 10 year period after 70 years of age.

He considers the criteria of malignancy as anaplasia, hyperchromatism, irregularity of the glands, and infiltration. There is also desmoplasia, i.e. a stimulation in the production of the basilar connective tissue. One must separate this from the desmoplasia that occurs in the benign polyp of a child. While desmoplasia is to be noted here also, this is not a malignant polyp in the child.

With invasion of the core or stalk of the polyp, there is the potential of metastasis. In a review of 100 of these cases, two were found to show evidence of lymph node metastasis.

II. *The Place of Viruses in the Pathogenesis of Cancer:*

Dr. Gilbert Dalldorf.

Although certain virus or viruses will produce tumors in animals, we have no evidence that a virus will produce a tumor in the human. This does not prove that the virus is absent, or that it can't or would not produce a tumor in a human. Some viruses have been isolated from human cancer, but there is no evidence that there is a casual relationship, but rather that this is an incidental finding.

Spontaneous mutations occur about one in every million mitoses. Additional mutations may be induced by radiation or viruses. There seems to be a linear relationship between the age of the organism and the number of spontaneous mutations.

The Virus Theory

Viruses and genes are very similar in size and in chemical composition, both are nulceo-proteins. One can postulate that the virus is literally an infectious gene and that the pathological virus will control cell protein synthesis. The virus may be incorporated genetically into the cell, divide as the chromosome divides, and result in an altered cell. Some of the properties of the cell are then due to the virus that has been incorporated in the cell, and yet the virus itself cannot be transmitted or cultured from the cell. This concept may account for the disappearance of the virus in the rabbit papilloma. The virus modifies the cell and it, in turn, is modified by the cell. This establishes a biological system that is suitable for the production of cancer.

III. *Inclusion Bodies of Possible Viral Origin in Chronic Ulcerative Colitis and Benign and Malignant Polyps of the Large Intestine*

Ferdinand C. Helwig, M.D.

The unfailing presence of desoxyribose nucleic acid (DNA) containing epithelial cytoplasmic inclusion bodies in polypoid carcinoma and adenomatous polyps of the colon and rectum in adults presents the possibility of a viral etiology. DNA is not nuclear debris, there is no cell degeneration, nor is it ingested material. Most viruses contain DNA.

Cancer of the colon, if it is associated with ulcerative colitis, occurs in a younger age group, i.e. 10 to 15 years earlier than cancer of the large bowel itself.

There is not infrequent association of idiopathic chronic ulcerative colitis and carcinoma of the large bowel. This suggested that similar inclusions may be found in the former. Fifty-seven per cent of ulcerative colitis cases studied showed such inclusions. Further studies showed that these inclusions might be found in early stages of chronic ulcerative colitis.

It would seem that ulcerative colitis is a precancerous lesion in possibly as high as 30 per cent of the cases. The possible viral origin of ulcerative colitis was considered as far back as 1935.

In this review, Dr. Helwig considered 12 cases of ulcerative colitis and all were early cases. He felt that probably chronic irritation might awaken a latent virus.

IV. *The Etiology of Carcinoma of the Colon and Rectum:*

Dr. Cuthbert E. Dukes.

This paper dealt with the relationship of the etiology of cancer of the colon and rectum in its pathogenesis. Apart from etiological factors which apply to cancer in general, there are some factors of special or local character which seem worth further study, such as heredity, re-

parative processes, "bad habits," and "carcinogens from the kitchen," though it is unlikely that these will explain more than a small fraction of cancers of the colon and rectum.

Cancer of the colon is extremely rare in any other animal than man. In the rat it is only noted in association with prolapse of the rectum, in the pig it does occur, but is not common.

Carcinogenic agents can stimulate gastrointestinal tumors but they are required in such large doses in experimental animals to literally be at toxic levels. Irradiation can produce gastrointestinal tumors.

There is a long, latent period between the application of the carcinogen in the development of the tumors. This is possibly 10 to 15 years.

Three customs of the human such as cooking, the ingestion of medicine, and the use of preservatives may enter into the development of gastrointestinal cancers.

Superheated fats could prove to be carcinogenic. however the temperatures used in cooking are rarely great enough to produce a carcinogenic fat. Liquid paraffin (mineral oil) seems to be in common use in patients developing carcinoma of the large intestine and yet there was no real relationship established with the enormous use of mineral oil during the period of 1905 to 1910. Certainly women use it more than men, and yet cancer is more common in the male.

Hereditary factors may play a role, and yet we have established only one specific association and that is in familial polyposis. In this disease, cancer does commonly develop, but it is not the cancer that is inherited, it is the polyposis of the colon. There certainly is an increased incidence of the benign rectal polyps in certain families. Possibly this is due to the transmission of a virus from one generation to the next. Or there may be a genetic imbalance in certain families with increased incidence or tendency to the development of cancer.

Roundtable Discussion of Drs. E. Helwig, Dalldorf, F. Helwig, and Dukes:

Dr. Helwig does not concur with Dr. Ackerman's contention that there is no relationship between polyps and cancer of the colon.

To date there has been very little effort expended to induce human tumors by the injection of a virus or viruses. Considerable work would be necessary along this line because there is a species specificity, a site specificity both of which make human injection extremely difficult.

Dr. Ferdinand Helwig found the inclusion bodies in ulcerative colitis and in the adenomatous polyps, but was not able to demonstrate these in any other of the inflammatory lesions of the colon.

Dr. E. Helwig has frequently found skip areas of cancer in the stalk of the polyp. He considers carcinoma-in-situ to be a non-clinical cancer.

Dr. Dalldorf pointed out that the toxin produced by the diphtheria bacillus is really due to the virus that is present and carried within the diphtheria bacillus.

The patient who develops chronic ulcerative colitis must be watched closely, for if a malignancy develops it will be an atypical type, grossly and histologically, it will be very anaplastic, highly malignant and will occur at an earlier age than cancer is usually noted in the colon.

It was the consensus of the group that surgeons are now operating upon patients with ulcerative colitis at an earlier age than they have in the past.

V. *The Value of Proctoscopic Examination:*
Dr. Rupert B. Turnbull.

The principal value of proctoscopic examination is realized when a cancer of the rectum is discovered in a symptomatic patient. Mass examination of thousands of asymptomatic patients has resulted in the finding of but few cancers. The ultimate goal in cancer detection is the education of physicians to utilize this method of examination more frequently in patients with symptoms of the colon and rectum. He recommended the use of a tilt table, and having suction immediately available. In 13,600 proctoscopic examinations done as routine procedures, only three cancers of the lower bowel were found and two of these occurred in symptomatic patients. In their series of 70 patients with polyps, six had cancers. They treat all polyps by local excision. He considers the posterior wall of the rectum a relatively blind area on proctoscopic examination. He does not recommend an enema in the prep for the patient with symptoms, but strongly encourages repeated examinations in the symptomatic patient, if that is necessary to make a diagnosis. If the symptoms are so severe and the irritations so great, it may be necessary to use an anesthetic.

VI. *The Technic of Proctoscopy:*
Dr. Raymond J. Jackman.

About 70 per cent of all diseases that involve the entire five feet of large intestine can be diagnosed by means of proctoscopy. By this he means that 70 per cent of polyps, cancers, etc., are within reach of the proctoscope. X-ray studies of the large intestine should be contingent on proctoscopic findings. He recommends the use of local anestheisia and having the patient strain after the scope is well in. He strongly encourages two soapsuds enemas within two hours of the time of doing the proctoscopy, fully realizing that many others prefer no enemas. It must be realized in recording the data that a soapsuds enema will cause injection of the mucosa.

VII. *X-Ray Examination of the Colon and Rectum for Cancer:*

Dr. Fred J. Hodges.

This paper reported a 30 per cent, five-year survival in malignancies of the bowel. Some iodine can be used in the presence of incomplete bowel obstruction, and this may be a help in diagnosis. The right colon is notorious for silent lesions.

VIII. *Exfoliative Cytology in the Diagnosis of Cancer of the Colon:*

Dr. Howard F. Raskin.

The study of exfoliated cells is a valuable and reliable method for the detection of adenocarcinoma of the colon beyond proctoscopic range. In a series of 192 patients, malignant cells were recovered in 39 of the 41 patients with proved cancer. Eleven of theese patients with positive cytology had negative or inconclusive x-ray studies. Recognition of the malignant cells is not difficult, provided adequate preliminary cleansing of the colon can be obtained. Patients with ulcerative colitis, strictures, and ileocolostomies are the most difficult to prepare.

Cleansing enemas of normal saline solution, using 2,000-2,500 cc are used. The foot of the bed is elevated on shock blocks, initially the patient lies on his left side, then on the back, then on the left side and this is repeated three or four time. Folowing this, there is a wait of about two hours before giving the diagnostic enema. Dulcolax is used, which is quite effective orally, giving three or four of the 5 mgm. tablets on the night before the enemas, and a suppository at 7 a.m. This is then followed by the above listed cleansing enemas and the diagnostic enema. The diagnostic enema is given through a proctoscope which has been inserted to the level of 15 cm., and through this an Ewald tube is inserted for about 10 additional cm. About 800 cc. of normal saline solution is injected rapidly, the patient is put on the left side, onto the back, to the right side, to the back, to the left side. The Ewald tube is unclamped after this rotation of the patient. The specimen is centrifuged and the cells stained. The entire procedure is done twice. Raskin finds that malignant cells have red nucleoli, they are large nuclei with a small amount of cytoplasm and large vacuoles. He claimed a correct diagnosis in 96 per cent of the series, and credited radiology with only 76 per cent correct diagnosis. There seems to be very little difficulty in the interpretation of the cells, except in some cases of ulcerative colitis.

IX. *Early Clinical Manfestations of Cancer of the Colon and Rectum:*

Dr. Henry L. Bockus.

Early detection of carcinoma of the colon and rectum has very great importance. First and fortunately, diagnostic procedures directed toward the colon for the detection of neoplasm have great accuracy. Second, the cure rate for cancer here is greater than that for any other part of the alimentary tract. Third, discovery of the tumor soon after the first symptoms appear unquestionably increases the likelihood of cure. Consequently, physicians and laymen must be ever alert to early clinical manifestations. Simply stated, they include: (1) change in bowel habit; (2) abdominal or rectal pain or discomfort often related to defecation; and (3) the discharge of blood with the stools.

In a review of 418 cases, pain was the first symptom in 76 per cent of the right colon cases, the first symptom in 41 per cent of the left colon cases, and 24 per cent of the sigmoid carcinomas. This pain was characterized by moderate cramping and relieved by defecation or passing of flatus. Eighty per cent of the rectal cases had bleeding and in 37 per cent of them it was their first symptom. Forty-nine per cent of the left colon cases bled and in 26 per cent it was their first symptom. Thirty per cent of the right colon had bleeding, and in 7 per cent of the right colon cancer cases, it was the first symptom.

Change of bowel habit occurred in 71 per cent of the rectal cases and in 42 per cent of the rectal cases it was the first symptom. Sixty-nine per cent of the left colon cases had a change in bowel habit, and in 36 per cent it was their first symptom. Fifty-four per cent of the right colon cases had a change in bowel habit, and it was



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the first or presenting symptom in 13 per cent.

Bowel obstruction was present in 11 per cent of the patients when they were first seen. There was a weight loss of more than 10 pounds in 38 per cent of the patients. Metastasis was present in 7 per cent to 16 per cent of the patients when they first came in. A mass was palpable in 30 per cent to 60 per cent of the cases. Twenty-four per cent of all cases were anemic, 10 per cent of all cases had anemia of such severity that it was a cause for the presenting symptom. Of the 418 cases there were precursor lesions present in 9 per cent.

Panel discussion by Drs. Turnbull, Jackman, Hodges, Raskin and Bockus:

Six and a half per cent of the patients had multiple lesions of the colon. They encouraged a barium enema, even if diagnosis was made of cancer of the rectum, in view of the multiplicity of lesions. All agreed that it is extremely hard to find and diagnose the lesions at the time of surgery. Bockus felt that there was no inter-relationship between the development of pseudo-polyps in ulcerative colitis and the development of cancer. Further, only 10 per cent to 20 per cent of the ulcerative colitis cases developed pseudo-polyps. At the University of Pennsylvania, they had no cases of cancer in patients with pseudo-polyps.

All of the participants agreed that if cancer occurs in an ulcerative colitis patient, it will occur unusually early.

In cases where there is a co-existence of diverticulosis, diverticulitis and cancer, and certainly these problems can co-exist, Raskin felt that cytology was sufficiently accurate to permit a differential diagnosis of the problems present. It is his decision to do cytology if the patient's diagnosis will be made with difficulty from the clinical or roentgenographic point of view. If the lesion is above the level of the proctoscope, x-rays are questionable, and if there is obscure bleeding, cytology would be preferred in approximately 10 per cent of the cancer of the colon cases. They get more cells from right colon lesions than from left. Further, Raskin has found that cytology is helpful in differentiating amoeboma. He has no false reports on right colon lesions.

Jackman has seen tears in four occasions at the site of anastomosis by passing the scope above this level.

Bockus feels that obstruction from a malignancy does not preclude a cure in that case. The pain present is a result of motor dysfunction.

Serosal involvement causes severe radiating pain.

(To Be Continued)

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1894-1958

AN APPRECIATION



Frank J. Milloy, M.D.

DR. MILLOY was born March 1, 1894 near Omenee, N. D. Something of the coldness of that area made him reserved; this cloaked a warm, courageous interior.

In those early day he made many friends and one of them has written, "I have known Tommy (as we called him) since 1911, when he was in high school at Omenee, N. D. He was a good student and an outstanding basketball player in his high school days. We attended the University of North Dakota beginning in 1912, he was a very popular fellow at the university, he belonged to the Senigoy Fraternity, in which he was very active, was a member of the university band, and was considered an excellent student."

Another fellow Dakotan recalls that Dr. Milloy was a very conscientious student, and his college and medical school record was enviable. Here it should be noted that Dr. Milloy began at the University of North Dakota to study law. It so happened that his roommate was a medical student, and Dr. Milloy became so fascinated by the anatomy and physiology books that he neglected his law studies and later returned to the academic school and took some pre-medical work so that he was able to enter the medical school. After two years of medical study at North Dakota, he transferred to Northwestern University, where he graduated from the School of Medicine in 1920.

Dr. Milloy spent about two years at the Mercy Hospital, in Chicago, on the service of Dr. Sippy. His training was received under a notable pioneer in gastroenterology; a regime still carries Dr. Sippy's name. His was the first class at Northwestern Medical School required to have an interneship before they received the M. D. degree.

Among Dr. Milloy's papers was found a short note concerning Dr. Sippy. It might be interesting to those of us who were trained in a later generation of medicine. Dr. Milloy wrote, in part: "Dr. Sippy was a chemist and a keen research observer as well as a great clinician. The result was that his firm convictions on the subject of peptic ulcer were proved in the laboratories as well as in the living patient. In his heyday, Dr. Sippy had a hospital service averaging 200 patients, about 25 per cent of whom were peptic ulcer patients.

"There were those investigators in Sippy's time who believed that free hydrochloric acid in the stomach had no connection with the development or presence of ulcer. Dr. Sippy's classical quotation: 'Whatever the future may reveal as to the causes of ulcer and the influences that retard its healing .. . results . . . may be obtained by maintaining an efficient neutralization of free acid . . .' has withstood the test of time. Dr. Sippy demonstrated that the three chemical agents which produced this condition in the greatest number of patients were calcium carbonate, sodium bicarbonate, and magnesium oxide.

"Sippy recognized the beneficial influence of gastroenterostomy in bringing about a remission of gastric and duodenal ulcer symptoms and a reduction in acidity, and particularly through accelerated emptying of the stomach, thus reducing the duration of the corrosive action of the gastric juices. He demonstrated that the real cures, or the wonderful relief of symptoms was

directly proportional to the amount of pyloric obstruction produced by scar tissue narrowing the pyloric ring. Dr. Will Mayo once remarked that if he had an ulcer of the stomach, he wanted to be treated nine times medically before he would submit to surgery."

During his second year on the service of Dr. Sippy, Dr. Moorehead, chief of staff of Mercy Hospital in Chicago, received a letter from Dr. E. Payne Palmer Sr. of Phoenix, Ariz. Dr. Palmer was searching for a young man training in internal medicine and gastroenterology to serve with him on the staff of the Southwest Clinic which Dr. Palmer had organized here in Phoenix.

In 1921 Dr. Milloy accepted this position with the Southwest Clinic and was associated with the clinic and with Dr. Palmer all during the time that this clinic was extant.

In 1922, Dr. Milloy married Ola Sue McCabe of Columbus, Neb. They met when Miss McCabe was a student nurse at Mercy Hospital. She graduated and received her degree in nursing from Northwestern Medical School. To the Milloys were born three children: Frank Jr., a physician in Chicago, and, like his father a graduate of Northwestern; and two daughters, Mary Elizabeth Milloy of San Francisco, and Mrs. Kathleen Mulligan of San Diego.

Mrs. Milloy relates that there were some interesting experiences in Phoenix in that day, and some of the calls of Dr. Milloy made in the country to visit patients. On one occasion she accompanied him up Black Canyon way and they were forced to abandon the automobile and ride a horse across a swollen wash to reach the patient. They stayed all night before returning to Phoenix the next day. Mrs. Milloy suggests this was not altogether a proper experience to undergo while wearing a new spring suit.

On another occasion, while they were in church on Sunday morning, Dr. Milloy received an emergency call from over toward Buckeye. After making the drive of about 30 miles, they came to a camp of cotton pickers, and all from the fair state of Texas. It developed that a two-year-old boy had been bitten on the thigh by a rattlesnake. The Texans were parading the snake around to demonstrate to all hands what a magnificent five-footer he was, and not too much attention was being paid to the youngster. Dr. and Mrs. Milloy worked with the child until four o'clock in the afternoon. During this time they had put him in cold packs in order to keep the fever down and stop convulsions, and had given the child sips of strychnine and alcohol. The latter at least should have been pleasing to the Texans. Then it was decided, about four in the afternoon, that they should have something for Dr. and Mrs. Milloy to eat. She remembers that they came back from Laveen with a loaf of bread and some tomatoes. This, together with some so-called coffee, was the repast. While they sat at the table eating, closely scrutinized by the onlookers, Mrs. Milloy felt something nibble at her shoe. She felt that it was undignified to turn around and look under the table so she managed to get through the meal. She was relieved to find that it was only chickens under the table pecking at some ornaments on her shoes.

The child was apparently improving, so they returned to Phoenix.

This medical adventure has an interesting finale. The Texan came in with his son the next morning and informed Dr. Milloy that he would now take his boy to his own doctor where he could get some good treatment. Such are the fortunes of practicing medicine.

In 1929, Dr. Warner W. Watkins organized a group of clinicians into what is now called the Clinical Club of Phoenix. Of the first six, Dr. Milloy was a member, this was later enlarged to 12 and from 1929 until the present, this group has met regularly to discuss Cabot cases from the Massachusetts General Hospital. One of Dr. Milloy's associates related that Dr. Milloy attended these meetings faithfully during the last two years of his life, discussed these cases with great clarity, even though his health was failing rapidly.

In 1935, Dr. Milloy was certified by the American Board of Internal Medicine — further evidence of his professional proficiency.

At about this time he began investigating cases of amoebiasis. Little attention had been paid to this disease in this country prior to the outbreak in Chicago during the World's Fair. His enthusiasm in this direction may have been overactive. Nonetheless he awakened his fellow practitioners to the presence of the disease in Arizona.

Some of the senior practitioners will recall, before World War II, when theology and medical principals collided, he stood with his fellow physicians!

Another first of Dr. Milloy's is that he obtained and administered the first penicillin used in the Valley. This was during World War II when

penicillin was restricted to use by the armed forces. The request went through all of the devious channels to the President and the penicillin was flown to Phoenix in an air force plane. (At least this was a desirable mission for an air force plane, some of us will recall that these planes, on occasion, flew Elliot's dogs.)

Dr. Milloy is given credit for introducing blood transfusion work into Arizona. This was the days of the direct transfusion methods. Those of you who can recall the Unger apparatus and the trials at keeping it clean and in working order will know that giving a blood transfusion differed slightly from the present method of simply placing the request on the patient's chart. One of his associates in the clinic in those early days has stated, "Frank went his way quietly and did his work in an expert fashion. He never got riled up and was always courteous to his associates and colleagues. He was always willing to give any service that was at his command for a patient and seemed always to 'get a kick out of his work'. His work was thorough and he was able to keep up with all medical advances."

Dr. Milloy was always very active in The Arizona Medical Association and was elected secretary in 1942. In 1944, he and Drs. J. D. Hamer and B. F. Harbridge, as editorial committee, began the publication of *Arizona Medicine*, the Journal of The Arizona Medical Association. The editorials of the first volumes of this Journal range over a good many subjects and the first one concerns the birth of *Arizona Medicine* itself. Dr. Milloy wrote, "When the governors of *Southwestern Medicine* found it necessary to discontinue publication of *Southwestern Medicine* for the duration, the state society took the opportunity to publish a journal devoted entirely to the State of Arizona. While we regret deeply the loss of our many friends in New Mexico and El Paso, nevertheless the members of the state medical profession have long felt the need and necessity of its own journal. *Arizona Medicine* will be published bi-monthly." After the war was over, an attempt was again made to re-establish the publication of *Southwest Medicine* to embody *Arizona Medicine;* this was strongly opposed by Dr. Milloy, and the continued publication of this Journal is due, for the most part, to his efforts.

In this first issue, Dr. Louis B. Baldwin of Phoenix described the organization and origin of the Salt River Valley Blood Bank. There are some who have apparently forgotten the diligent work undertaken by Dr. Baldwin and his associates of the Maricopa County Medical Society in the organization of this institution.

The first two volumes carried letters from various members of the state association who were in the armed forces.

The U. S. Public Health Service, in co-operation with the office of civilian defense, organized an affiliated base hospital unit in co-operation with St. Joseph's Hospital of this city. Dr. Milloy was appointed director of the unit with the USPHS rank of senior surgeon. He continued to hold this reserve rank in the public health service until his death.

Dr. Milloy continued to publish and edit *Arizona Medicine* until 1952. He was so modest and such a quiet worker that few knew of his contributions to the organization of the state association and its Journal.

An editorial which he wrote for the January 1947 number of this Journal might well be considered the code by which he lived. It was entitled, "Professional Courtesy."

"No professional group is more entitled to hold heads high in praise of accomplishment than doctors of medicine. Probably no group is subject to more criticism by the laity, nor is the object of more sweeping legislative revolution. Only by unity of purpose, highly ethical conduct, and meticulous attention to the welfare of the patient, regardless of his economic status, can the profession hope to ride out the storm now raging.

"Unfortunately, a few individual physicians have extremely bad taste in criticizing the care contemporaries have given patients, openly to the patients and to their relatives. The preogative of a patient to change to another physician is a sacred one. However, it is indeed unbecoming for the new physician to imply either by word or insinuation that the former physician was incompetent. Such conduct is unprofessional, unethical and reprehensible and serves no real purpose except to promote distrust of the medical profession as a whole. The old adage, 'If you can't say anything good about a person, say nothing,' still holds good. The Golden Rule will never become obsolete."

From the hills of North Dakota, to the Valley of the Sun, Frank J. Milloy set a high standard of personal and professional conduct.

JOHN W. KENNEDY, M. D.

THE RATIONALE FOR THE USE OF VITAMINS IN FORESTALLING INFECTIONS

Many clinicians believe that good nutrition plays a significant role in preventing bacterial infections, and that immunity depends on adequate vitamin levels. Tisdall[1] states that "a low intake of a number of vitamins, a low intake of minerals, and a change in the quality of protein can all lower resistance to infection."

Other studies show the important role of the B vitamins in antibody formation. Thus, *Nutrition Reviews*[2] reports: "Present evidence indicates that certain B vitamins, notably pyridoxine, pantothenic acid and folacin, play a significant role in antibody synthesis." According to Pollack and Halpern,[3] "Under-nutrition leads to increased susceptibility to infection and decreased resistance to established disease." And "vitamin deficiency states also may adversely influence circulating antibodies."

Halpern[4] reports that "good nutrition is important for optimal resistance to infection, for a superior tissue capability to cope with disease and injury, and for maximum antibody production ... nutrition participates in the prophylaxis against most acute infections ..."

And while MacBryde[5] feels that evidence is lacking to support the view that a higher than normal intake of vitamins will improve resistance to infection, he also states: "Restoration of nutrition to normal exerts a favorable influence on practically all disease conditions ... Often the outcome will depend more upon the correction of the malnutrition than upon any therapy directed toward the malady."

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Topics of Current Medical Interest

SUSPECTED ACTIVE TUBERCULOSIS

REPORTING

IN THE INTEREST of good medical practice and in order to give support to our state and local health departments in determining the health status of cases reported to the health department, the following resolution was proposed by the professional board and adopted by council of our association:

"That in cases of suspected active tuberculosis, the physician in charge of the patient submit to the Arizona State Department of Health a report on a chest film, certified and signed by a qualified practitioner of medicine; that the physician also submit a report on a series of three gastric washings by a qualified laboratory, signed by qualified employes; and that such procedures be carried out within 30 days of the request."

The above resolution is the outcome of difficulties that have repeatedly occurred in the proper evaluation of tuberculosis patients reported to the health department as active cases from other states or other proper reporting authorities.

PROGRESS REPORT FROM THE ARIZONA POISONING CONTROL INFORMATION CENTER AT THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY

*Treatment of Barbiturate Poisoning: Analeptic Therapy vs. Supportive Therapy Alone**

TWO SCHOOLS of opinion exist with regard to the proper treatment of acute barbiturate poisoning.

One group contends that there is no method of general systemic stimulation which provides an adequate substitute for the direct physiological treatment of the depressed respiratory and circulatory systems accompanying barbiturate intoxication. Hence they consider supportive therapy alone as the treatment of choice. They point out that the use of analeptics is not without danger, since these agents increase the brain's oxygen demand in the presence of a condition of anoxia and, further, that these drugs are convulsant poisons. Available statistics indicate that the mortality rate among patients in coma from barbiturate poisoning who have been treated with analeptics has been higher than among comparable subjects treated without central nervous system stimulants.

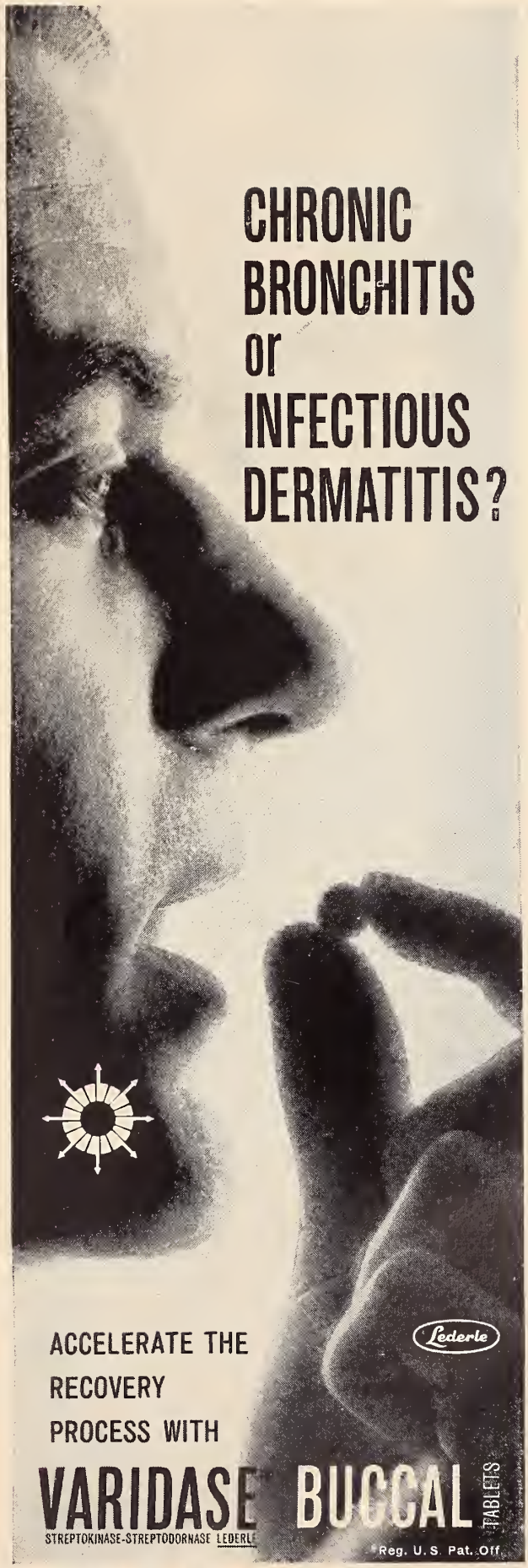
In Copenhagen, Denmark, a special center for the treatment of drug intoxication employs the conservative supportive method to treat barbiturate poisoning. In this treatment, the gastric contents are not aspirated unless the poison has been ingested within four to five hours and the pharyngeal and laryngeal reflexes are preserved. The patient is placed in a slight Trendelenburg position and is turned over every four hours. A hollow tongue depresser is inserted, through which oxygen is administered continuously. Penicillin is given prophylactically, and the fluid balance is maintained. Shock is treated with whole blood or a plasma expander such as Dextran. The airways are kept free at all times. If respiratory paralysis develops, artificial respiration is given.

The second group, the proponents of analeptic therapy, admit that not all patients suffering from barbiturate intoxication require a central stimulant and agree that such agents very often are used without sufficient justification. On the other hand, they emphasize the value of analeptics in properly selected cases and suggest a diagnostic test to determine the latter. In this test, small amounts (5 cc. of a 10 per cent solution) of pentylenetetrazol (Metrazol) are injected intravenously. If the patient responds with a return of reflexes or purposeful movements, depression is not great enough to warrant the institution of any therapy other than that of a symptomatic nature. If no response or only slight respiratory or vasomotor stimulation occurs, then specific treatment should be undertaken. They consider that analeptics should be an essential part of this specific treatment, since medullary stimulation may mean the difference between life and death.

*The treatment of acute poisoning from barbiturates as recommended by the Arizona Poisoning Control Information Center's Advisory Committee can be found in the Poison Control Card File provided for each of the 18 Poisoning Control Treatment Centers.

STATISTICS OF 78 POISONING CASES IN ARIZONA REPORTED SINCE THE SEPT. 1, 1958, PROGRESS REPORT

Age	*Per Cent*	*Number*
Under Five Years	68.2	(53)
Six to 15	3.8	(3)
15 to 30	6.4	(5)
30 to 45	10.2	(8)
Over 45	6.4	(5)
Not reported	5.0	(4)
Nature of Incident:		
Accidental	80.8	(63)
Intentional	19.2	(15)
Outcome:		
Recovery	100.0	(78)
Fatal	0.0	(0)
Time of Day:		
Between 6 a.m. and noon	33.3	(26)
Between noon and 6 p.m.	29.5	(23)
Between 6 p.m.-midnight	29.5	(23)
Between midnight-6 a.m.	1.3	(1)
Not reported	6.4	(5)
Causative Agents:		
Aspirin preparations	29.5	(23)
Insecticides and rodenticides	17.9	(14)
Solvents (gasoline, kerosene, paint thinner, Pine-sol, etc.)	15.4	(12)
Sedatives (barbiturates, meprobamate (Equanil), hydroxyzine (Atarax).	15.4	(12)
Household cleansers (Chlorox, Sani-Flush, lye)	3.8	(3)
Botanical products (Bird of Paradise, toadstools, mushrooms)	2.6	(2)
Matches (tips of book matches and "strike-anywhere" matches)	2.6	(2)
Miscellaneous: (Ex-lax, potassium permanganate,, Kyrex, Free Wax, moth balls, iron tablets, etc.)	12.8	(10)



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AMA'S 1958 PR

IS MEDICINE aware of the changing events and shifting philosiphies on the American scene? Is the profession adapting its activities to changing concepts and changing needs?

To answer these questions, medical society representatives recently called upon four "experts," representing business, the insurance industry, labor and politics to air their views. An entire morning at the AMA's 1958 PR Institute was devoted to a give-and-take discussion of the problems in each of these important segments of American life to gain greater insight and understanding.

Chairman Hugh W. Brenneman, public relations counsel for the Michigan State Medical Society, set the stage for the discussion by asking each expert to discuss the most significant changes taking place in his field and explain how they relate to medicine.

The two major problems facing the insurance industry are extension of coverage to senior citizens, and the rising costs of health insurance, according to Morton Miller, New York, chairman of the Health Insurance Council.

Miller cited great gains in insurance coverage so that today 123 million people—seven out of 10 persons—have some protection. Americans have a wide range of coverages from which to choose, he said, but pointed out that ultimately the government may have to help those who are unable or unwilling to allocate enough of their funds for health benefits after retirement.

"The real challenge here is to find a way of doing so which will cause a minimum of disturbance to our fine system of private medical care and voluntary medical or health insurance," Miller said.

In discussing unnecessary costs, Miller said the insurance industry and the medical profession have a responsibility to remove them, whether they arise from abuse or from ineffective use of medical facilities and medical service. It is the doctor who determines the quality and quantity of the patient's medical care and consequently he controls the way in which health insurance as a means of financing health care works out.

Calling for co-operation, Miller said the public and the medical professioin alike must understand what health insurance can and cannot do, how much it means to everyone, and what responsibilities it places on each individual.

Public More Health Conscious

Leo Perlis, New York, director of community services activities for the AFL-CIO, said that changes in the science and practice of medicine as well as more health education resulting in a more health-conscious public, has created many medical economic problems. Other factors contributing to these problems are the growth of collective bargaining and the extension of trade unionism, the acceptance of responsibility for the workers beyond the plant gates by both labor and industry, population increases, moves to the suburbs, automation and added leisure time.

Perlis said that even though tremendous gains have been made in extending insurance coverage, labor is not yet satisfied with what has been accomplished. Labor will not be satisfied until there is greater coverage with more benefits and action.

"The issue we face today is not whether medical care is going to be provided voluntarily by insurance companies or by some governmental health plan, but how can we make voluntary plans work? The real issue is — do we keep our minds open to all possibilities?" Perlis said, underlining his own belief in voluntaryism as "the heart and soul of a democratic society."

As keys to greater success in working for better medical care, Perlis called for participation, identification and experimentation. Labor has great respect, he said, for the medical profession's know-how and devotion, but all people concerned with medical care — labor, industry and others — should serve on boards of those organizations providing medical care, with all groups participating and no group dominating.

Labor has identified itself with the public good, Perlis said, and medical societies also should become identified as community organizations working ofr the public good.

"The need for continuing, constant experimentation in the economic laboratories exists if we are going to make voluntary plans work. We nced experimentation on plans not only to provide medical and surgical care in hospitals, but home care, dental care, psychiatric care and nursing care," Perlis concluded.

The Hon. Thomas B. Curtis, congressman from the second Missouri congressional district, cited three basic economic factors in American life to-

day — suburbanization, an economy of plenty, and a fast-growing population.

Our increased cost of living, Curtis said, in many cases indicates an increase in the quality and standard of living. Among these increases are better medical care and longer life.

"People get an awful lot more for $1 of medical and hospital care today than they ever got before," Curtis said. "I think one reason hospital costs are going up and have gone up is that the patient now comes out on his own two feet, instead of in a coffin — and his hospital stay is less because of it."

Years of added life, according to the congressman, is levying a tax of inflation on America's older citizens, creating an economic problem. One solution to reduce this problem he suggested was to build modern nursing homes which can care for the aged at a reduced rate.

Curtis said government will always play an active role in solving any social problems, but he stressed the importance of the individual's role in bringing about improvements. He said the two-party system in American government is breaking down and urged the interest of medicine at the "grass roots" in governmental activities.

"Keep a broad outlook, get the word out on specific issues, give congressmen the benefit of your beliefs, and honest debate," Curtis concluded.

"Recession Neurosis"

Jules W. Lederer, Chicago, president of the Autopoint Company, told the audience that public relations is a selling proposition based upon listening and communicating.

The most significant change in business today, he said, is the consistency of change. He cited industry's dilemma in an era of increasing costs and uncertain market. Profits are down, he said, and yet industry constantly is required to raise wages and give added fringe benefits. Capital expenditures have been reduced, he said, and all of this has developed a "recession neurosis" in management.

Necessary layoffs have caused increased feelings of insecurity on the part of remaining employes, Lederer said, and this feeling is being transmitted to the buying public, thereby depressing purchasing. The business executive said he felt the recession will last for another 18 months or longer. Though management is trying to solve these problems, he said he believed there were difficult days ahead for both business and labor.

Lederer said he thought the uncertainties of our economy were creating widespread neuroses and insecurities in the nation and probably were putting an additional strain on the family doctor and hospitals.

Lederer agreed with Perlis that there will be increased participation of government in medical care provision and that the medical profession should do a better public relations job of telling the advantages of our voluntary system and pointing the way for the future.



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GOVERNMENTAL ACTION RELATED TO MEDICINE

RUSSIAN REHABILITATION EFFORTS IMPRESS SOCIAL SECURITY ADMINISTRATOR SCHOTTLAND

SOCIAL SECURITY Administrator Charles I. Schottland, back from a one-month tour of Russia, is impressed with the Soviet Union's progress in rehabilitation and care for old people. Based on his own observations and data furnished him by the Russians, Mr. Schottland reports:

1. Russian researchers have prepared separate pamphlets on each disabling disease. Mr. Schottland is having these translated for the information of the medical advisory committee on disability.

2. About a third of old people in Russian institutions are working on a voluntary basis, but for pay. He thinks that perhaps nursing homes and other institutions in tihs country can make more progress in this direction.

3. Nurseries and old peoples' homes in Russia are "excellently" staffed, with one employe for about every three old persons, and one for every two and one-half children.

Mr. Schottland says that about two-thirds of the Russian population is covered by social security, paid for entirely by the employers (government runs all large enterprises). He made the point that a comprehensive social security program is almost a necessity for the Russians, inasmuch as under their socialistic state, wages are about the only source of income and when wages stop, the people can look only to social security.

Also making the tour were Victor Christgau, Robert J. Myers, Corinne H. Wolfe and Arthur E. Hess, all social security officials. A similar Russian group will tour the U.S. shortly.

COMPLETE REPORT ON LAST SESSION'S LEGISLATION NOW AVAILABLE

The Washington office of theAmerican Medical Association has prepared a 32-page special report giving the essential information on all medical legislation introduced in the last (85th) congress. The report contains a listing of the 19 major bills enacted, the bill numbers and the public law numbers. It has a page index of all the 704 bills followed by the office, an index by subjects, a description of each bill and what action, if any, was taken on it by congress.

A copy will be mailed to anyone requesting it. Write to the AMA Washington office, ask for Special Report 85- 14.

The special report notes that in the past year the American Medical Association was fortunate in its legislative work. It supported most of the 19 major bills passed by congress, and not a single major bill opposed by the association became law.

In reviewing the year's legislative activities, the report declares:

"These pages are specific evidence, if any is needed, that medical legislation is one of the most popular areas of congressional activity. Each year this special report is a longer document, because more and more health and medical bills are introduced. Ten years ago, the Washington office was following 200 measures through congress; in the past congress, we kept watch on 704 medical bills and resolutions of the 20,604 total legislative proposals introduced during the two years of the 85th congress.

"This annual gathering together and tabulating of legislation serves a number of purposes. Its immediate value is as a sound source of information on exactly what measures were introduced and what happened to them during the past congress. Its long-range value is its disclosure of legislative trends over the years. An issue seldom comes to the fore overnight, or even in a year; but with a complete record available, an issue's evolutionary process can be traced to inception of the idea . . .

"Successful opposition to the addition of compulsory health insurance to the social security system occupied more time and effort on the part of AMA employes and physicians everywhere than any other one assignment. This proposal was strongly supported by organized labor, and without question will be pressed again next year. To meet this issue, the association has a positive program that will continue to bring private health care to all the population at a reasonable cost . . . "

IRS WON'T RULE ON CRITERIA FOR CLINIC TAX STATUS

Internal Revenue Service has decided not to make a ruling that would define basic criteria as a guide to group practice clinics in setting up retirement plans for their members. However, IRS announced that it would not discourage clinics from going ahead with plans for such re-

tirement programs. IRS, as well as the AMA's law department, advises clinics to obtain competent legal advice so as to avoid state and local as well as federal difficulties. The advantages of a retirement plan on a tax-deferred basis—which individual physicians are not privileged to set up — must be weighed against the fact the clinics also would be subject to federal corporation taxes of 52 per cent of profit.

QUESADA HEADS AVIATION AGENCY; IMPROVED MEDICAL SETUP SOUGHT

Appointment by President Eisenhower of Elwood R. Quesada as administrator of the new federal aviation agency, effective Nov. 1, increases prospects for strengthening the position of medicine in federal aviation activities. It is a recess appointment, subject to approval of the senate after the session opens in January.

When legislation providing for the new agency was before congress earlier this year, it had the active support of the American Medical Association. For years the AMA has been concerned with the deteriorating administrative position of medicine in federal agencies concerned with aviation problems such as examinations and human factors in plane design and operation. It anticipated that in an entirely new government organization, medicine would be given its proper role.

The AMA is proposing the federal aviation agency set up an office of civil aviation medicine to consist of the offices of civil air surgeon, regional flight surgeons and civil aeronautics medical research. The chief medical officer would report directly to the agency's administrator. In making the recommendations, the AMA stated:

"The purpose of these recommendations is to establish a completely adequate civil aviation medical program and to improve safety in air commerce through the development and application of sound medical knowledge and research in civil aviation and include such factors as standards of physical and mental fitness for airmen and methods of medical assessment and certification and medical advice on human requirements in aircraft design and operation."

Because the law specifies that the administrator may not be affiliated with the military at the time of his appointment, Mr. Quesada will have to resign his commission as an air force lieutenant general (retired). The President, however, said he hoped congress would pass legislation making an exception. Mr. Eisenhower declared:

"Mr. Quesada has been active in the field of aviation for 34 consecutive years. After 27 years of active service in the air force, he was placed on the retired list of the regular air force in 1951, after which he became engaged in civilian activities as an executive in private inuustry. Since June 1957, he has served as my special assistant for aviation matters which included, among other things, the development within the executive branch of government of legislation which established the federal aviation agency. He has clearly demonstrated his unique knowledge of the complexities and needs of civil and military aviation in the present age. He possesses, in the highest degree, the qualifications to be the first administrator of the federal aviation agency."

HILL-BURTON REVIEWS FIRST 10 YEARS

The hospital and medical facilities section of the public health service has issued a booklet, replete with statistics and tables, giving the detailed story of the first 10 years of the Hill-Burton hospital construction program, 1946-1956. The report also briefly sketches the development of hospitals in the United States, pointing out, for example, that one of the first efforts was that of William Penn in 1713 and that later Benjamin Franklin devised a financing system somewhat like the Hill-Burton program itself.

NIH AWARDS $136 MILLION IN GRANTS IN YEAR

The National Institutes of Health awarded 9,534 grants worth $136 million for research, training and construction to non-federal institutions during the fiscal year ended last June 30. Grants went to 699 institutions including some in 28 foreign countries. More than two-thirds of the money was to support 7,028 research projects and $30 million was used to help build or expand 177 research facilities. Facilities grants must be matched. A total of $6.4 million was invested in research fellowships to 2,329 in this country and 84 abroad. In addition, federal money supported 16 foreign scientists working in this country.

SECRETARY FLEMMING WANTS TO SHIFT SOME PROGRAMS TO STATES

Secretary Flemming plans next year to ask congress to shift two grant-in-aid programs, water pollution control and vocational education, to the states. A similar idea was advanced last year, but it brought no reaction in congress, and eventually was dropped.

To help the states pay for the programs, the U.S. would forego 30 per cent of the tax it now collects on telephone service, and have the states levy that part of the tax. Last year Secretary Folsom pointed out that this wouldn't return enough revenue to the low-income states to finance the sewage treatment plants and vocational education efforts. To solve this problem, the federal-state joint action committee, of which Mr. Flemming is a member, proposes that the new state tax money be supplemented by outright federal grants equal to 10 per cent of the total phone tax now collected by the U.S. A per capita income formula would be applied to distribution, so low-income states would receive a higher percentage of this fund.

The two funds would amount to a total of $145 million annually. Now federal grants for them total only $85 million. The secretary emphasized the great need for water pollution control, and said the intention was not to sacrifice this or vocational education while shifting the work to the states. How far the Flemming proposal will get with congress is problematic; the change will be certain to be opposed strongly by telephone interests and vocational education people. The latter don't want any chances taken with their well-established programs.

WASHINGTON BLUE SHIELD STUDYING LOW-COST INSURANCE FOR AGED AND LOW INCOME

The Washington, D.C., area Blue Shield organization, at the request of the District of Columbia Medical Society, is studying the possibility of setting up a separate medical-surgical care plan for low-income groups, *including the aged,* that would provide the regular benefits but at a reduced premium. Dr. Donald Stubbs, Washington Blue Shield president and chairman of the national Blue Shield board of directors, said the income cutoff point couldn't be estimated until it was learned how many subscribers would be covered. However, he thinks the maximum family income to qualify would be about $3,000. Hospitalization would not be covered.

An outline of the proposal has been sent to the six medical societies in the Washington area for their consideration, and Dr. Stubbs says he has heard "nothing unfavorable." At present the Washington Blue Shield has one income cutoff point, $6,000. Premiums average $4.94 a month per family, and $1.56 per individual. Because the



new low-cost plan is merely in the development stage, no premiums have been decided upon.

Dr. Stubbs said somewhat similar arrangements exist in some other parts of the country, having evolved over the years as higher income groups have been charged higher premiums. Some plans, he explained, have as many as seven separate premium rates, based on income. He is not aware of any other plan that has attempted to handle the problem of insurance for the low income group by arbitrarily setting up a new and lower classification as proposed for Washington.

CHILEAN TO HEAD PAN AMERICAN SANITARY BUREAU

Dr. Abraham Horwitz of Chile has been named director of the Pan American Sanitary Bureau and will assume office next Feb. 1. He succeeds Dr. Fred L. Soper, who is rounding out his third four-year term. Dr. Horwitz is on leave as director of the School of Public Health, University of Chile. He received his medical degree from the university and a master's degree in public health from Johns Hopkins University. From 1950 to 1953 he served in the headquarters of PASB in Washington as chief of the professional education branch. Dr. Soper, who will be 65 in December, has been made director emeritus of PASB.

CIVIL AIR SURGEON POST PROPOSED BY FEDERAL AVIATION CHIEF

The position with title of civil surgeon has been proposed within the new federal aviation agency. The proposal by FAA Administrator E. R. Quesada would assure status for civil aviation medicine considerably higher than at any previous time under the Civil Aeronautics Administration. The American Medical Association has advocated such a position as the first step toward an adequate number of qualified medical examiners for airmen and other personnel, in the interest of passenger safety.

Directly responsible to the FAA administrator, the civil air surgeon would have as his major function the direction of the civil aviation medical program and the goal of improvement of safety in air commerce through sound medical knowledge and research in civil aviation.

As director of FAA medical activities, the air surgeon would establish and maintain working relations with public and private agencies concerned with aviation medicine. His responsibili-



ties would include: (1) establish minimum standards of mental and phyiscal fitness for flight personnel, air traffic controllers and other personnel, (2) provide medical exams for such personnel, (3) provide inspection and appraisal of examiner facilities to insure proper assessment of physical fitness, (4) promote training activities for medical examiners, (5) encourage research in aviation medicine, (6) develop and conduct internal health medical programs for FAA employes. There is no age restriction for the post which has yet to be filled; applicants must have certification by American Board of Preventive Medicine in aviation medicine, or a related specialty with suitable experience in aeromedicine.

PRESSURE FOR AIDING AGED IN HEALTH SEEN BY HEW ASSISTANT SECRETARY

HEW Assistant Secretary Elliot Richardson sees increased pressure on the government for action on health care of the aged. Addressing the American Public Health Association, the No. 3 man in HEW warned: "Unless private, voluntary or local solutions to these and similar problems are found, the pressure for action at higher levels of government will continue to mount." Too few communities, he claimed, have adequate facilities for long-term care of the chronically ill and dependent elderly persons, and very few places pay full costs for the hospital care of the indigent, many of whom are aged.

"For these and other reasons, the cost of health care for the aged has become a political problem of great moment," Mr. Richardson declared. "It will not go away. The real issues center around the degree of public action thereby demanded . . . Some would say that far more federal action is needed; others insist that Uncle Sam is already in too deep."

Mr. Richardson's conclusion: " . . . despite recent progress by private and voluntary institutions in helping the aged to meet the costs of health care, the remaining gaps are serious and difficult to close. The activities of local jurisdiction, moreover, in working out solutions to the health problems of the aged are spotty, sporadic, and for the most part, inadequate."

CAB PROPOSES TO PERMIT EMERGENCY MEDICAL STOPS ON AIRLINES

A change in commercial flight regulations to permit airlines to make unscheduled stops in

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order to provide transportation for persons in need of emergency medical treatment is being proposed by the Civil Aeronautics Board. Present rules prohibit certain carriers from engaging in local air transportation between certain points on their routes, which is known as the "closed door" policy. CAB recently heard of a case where a line operating under the policy was prevented from supplying air transportation to a person in need of emergency medical treatment.

CAB, in its notice of proposed rule making in the Federal Register, comments: "Under such circumstances, a closed door restriction operates contrary to the public interest, and if requested, would undoubtedly warrant the board's granting relief from such restrictions in each individual case . . . Accordingly, the board deems it appropriate to exempt by regulation those air carriers operating under a certificate containing a "closed door" restriction from the provisions of such restriction to the extent necessary to permit them to provide local air transportation to persons in need of emergency medical treatment." A physician would have to certify the need.

VA OUTLINES MEDICAL RESEARCH PLANS, EMPHASIS ON AGED

The veterans' administration, with $15 million voted by congress this year, plans major new emphasis on studies of mental and physical deterioration associated with aging. VA also has mapped programs in mental illness, cancer, heart and blood vessel disorders and tuberculosis. In addition, some 50 VA hospitals equipped for use of radioisotopes will have programs to develop new techniques of atomic medicine for diagnosis and treatment.

Some examples of investigations involving the aged: Social and psychological aspects, at VA centers at Bath, N.Y., and Kecoughtan, Va.; changes in the elastic or connective tissue of the body with aging, and of the biochemistry of aging, at the VA center at Martinsburg, W.Va., and the Pittsburgh, Pa., general medical and surgical hospital; hearing loss, at the West Side Hospital in Chicago; gastrointestinal function, Manhattan Hospital in New York City; brain function in relation to hormones and use of drugs including tranquilizers, Martinsburg center; role of diet in aging and of hormones in relation to

BOOK REVIEWS

PRINCIPLES OF GENERAL SURGICAL MANAGEMENT
by **H. A. F. Dudley, FRCSE.** 203 pages. Illustrated. (1958) Williams & Wilkins. $6.50.

A group of surgeons at University of Edinburgh offer solid advice on surgical management in a manner that we think you will enjoy. Opinions are often dogmatic, the work is selective, the price is modest and you can't lose by ordering a copy on approval.

Stacey's Medical Books, San Francisco, California.

CARE OF THE PREMATURE INFANT
by **Evelyn C. Lundeen** and **Ralph H. Kunstadter.** 367 pages. Illustrated. (1958) Lippincott. $8.

This unique book was written jointly by the supervisor of the premature nursery and a staff pediatrician of the Michael Reese Hospital. The operation of their nursery is given in detail, along with a good general medical discussion. Both doctors and nurses concerned with the hospital care of premature infants will find this helpful.

Stacey's Medical Books, San Francisco, Calif.

PRACTICAL PEDIATRICS
by **R. Cannon Eley, M.D.** and **Benjamin Kramer, M.D.** 309 pages. Illustrated. (1958) Blakiston. $7.

The reviewer feels strongly about this one: "This is one of the most inexpertly written books I've seen. It is full of inaccuracies, misspellings, important omissions, misleading discussions, and often quite arbitrary viewpoints. I quit at page 82. I put cards in some of the places to illustrate the imperfections, and will return the book to you. I don't recommend it for anyone."

RADIOISOTOPE LABORATORY TECHNIQUES
by **R. A. Faires** and **B. H. Parks.** 236 pages. Illustrated. (1958) Pitman. $5.75.

A useful book on the basic principles in the use of isotopes includes basic nuclear physics, the production of isotopes and radiologic protection. Methods of detection, measurements, and application are summarized, especially as they concern industrial uses of radioactive isotopes. There are many useful charts and graphs.

Stacey's Medical Books, San Francisco, Calif.

VIRAL ENCEPHALITIS
edited by **William S. Fields, M.D.** and **Russell L. Blattner, M.D.** 225 pages. Illustrated. (1958) Thomas. $7.

A symposium of the fifth annual meeting of the Houston Neurological Society, includes accounts of the microbiology and epidemiology (Blattner, Lennette), the clinical (Robbins, Finley), pathological (Haymaker, van Bogaert, et al.) and preventive aspects (Cox). Virtually an exhaustive monograph, this volume should solidify and enrich some of the swampy notions on a subject of particular interest in the West.

Stacey's Medical Books, San Francisco, Calif.

A PRIMER ON COMMON FUNCTIONAL DISORDERS
by **Jack W. Fleming, M.D.** 174 pages. Illustrated. (1958) Litle, Brown. $5.

This is a primer written by an internist for the medical student and general physician. It is replete with excellent and amusing cartoons. It is abbreviated and chocolate coated but the solid core takes it out of the confectionery class. Painless, psychic perusing.

Stacey's Medical Books, San Francisco, Calif.

heart attacks and strokes, Los Angeles VA center.

MEDICARE EXPLAINS 'RESIDING WITH SPONSOR' STATUS OF DEPENDENTS

The Office of Dependents' Medical Care, responding to inquiries, has explained the eligibility status of dependents who reside apart from their sponsors at the time medical care begins, but rejoin the sponsor after completion of treatment. "As a general rule, such care may be continued (from civilian sources) without a medicare permit," ODMC states.

Readmission to a hospital is authorized within 14 days following discharge without a permit. However, in a maternity case, the wife rejoining her spouse during treatment is not eligible for continued civilian care (without a permit) if she changes her physician for any reason other than death or illness of the doctor.

SCIENCE FOUNDATION ANNOUNCES PRE- AND POST-DOCTORAL FELLOWSHIPS

The National Science Foundation is now accepting applications for two NSF fellowship programs for advance study in the natural sciences. One is a pre-doctoral program for which college seniors and graduate students may apply, and the other is a post-doctoral program for scientists who already have received the doctoral degree. Subjects include physical, medical, and biological sciences, as well as in anthropology and psychology other than clinical.

NSF estimates 1,100 such fellowships will be awarded next March. Stipends range from $1,800 for first year fellows to $4,500 for post-doctoral fellows. The usual dependency allowance will be $500.

DR. McGUINNESS CITES NEED FOR MORE PHYSICIANS

Dr. Aims C. McGuinness, special assistant to the secretary of health, education, and welfare, says that well-trained professional people in ever larger numbers are going to be needed to conduct medical research and to "bring this knowledge in the form of better medical care to our rapidly expanding population." Speaking at the American College of Preventive Medicine, Dr. McGuinness added that unless there is a marked increase in the production of physicians and other health personnel "not only the total research effort but the health services of the nation will be severly hampered in the years ahead." He forecast an increased medical research effort and estimated spending this year would exceed $425 million.

OCDM OUTLINES NATIONAL PLAN FOR CIVIL DEFENSE AND MOBILIZATION

The Office of Civil and Defense Mobilization, in a 32-page report, has outlined the national plan for civil defense and defense mobilization under three major contingencies: International tension, limited war and general war, including massive nuclear attack. The plan has been promulgated in accordance with Reorganization Plan No. 1 of 1958, which merged the Federal Civil Defense Administration with the Office of Defense Mobilization into the new OCDM.

"All citizens and governments at all levels, by virtue of their inherent obligation to support the common defense, are jointly responsible for the civil defense and defense mobilization of the nation," the plan states. The federal government is responsible for direction and co-ordination of the total national effort; the states are responsible for direction and co-ordination of activities and its political subdivisions, and local governments for programs of their subdivision.

OCDM said that professional, labor, service, religious, civic and social organizations are responsible for making such contributions to the preparation for and assurance of national, state or community survival as may be possible. For disaster services, the agency said states and subdivisions, with help from Uncle Sam, will stockpile necessary medical supplies and equipment and recruit and train personnel in disaster services. States also will use resources of non-governmental organizations such as the American Medical Association, American Hospital Association, and American National Red Cross.

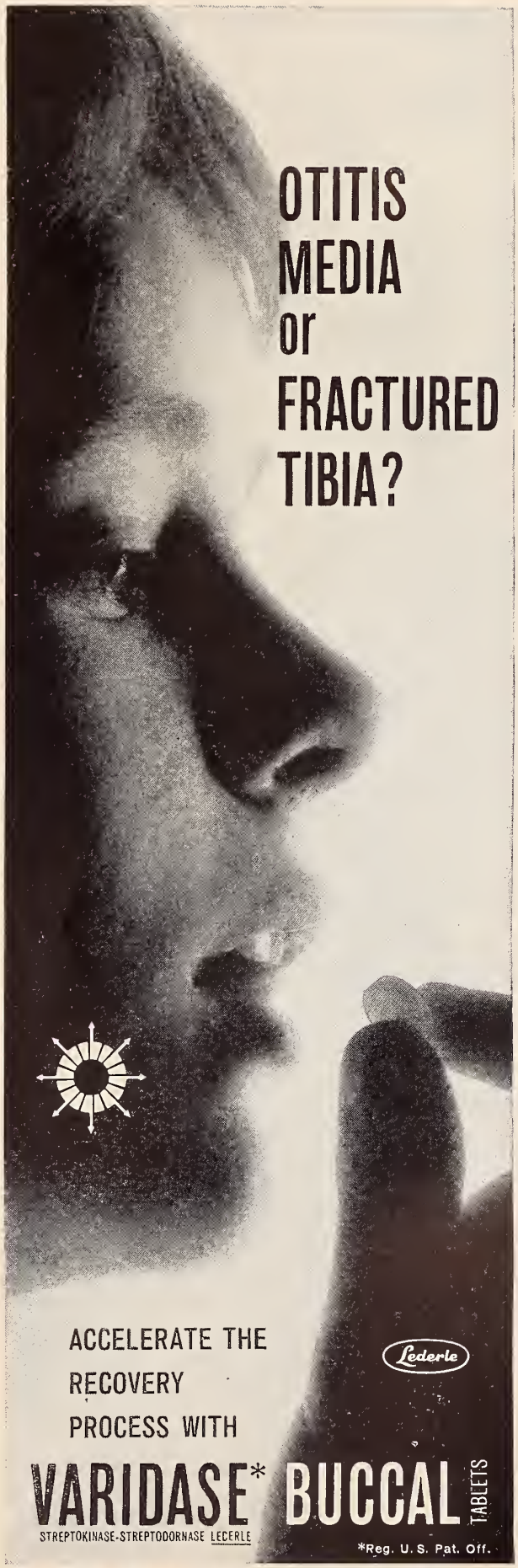
OCDM Director Leo A. Hoegh said the principles outlined in the national plan would be supported later by a series of 40 annexes, including one on a national medical and health plan. It is being drawn up by the department of health, education, and welfare which has been given broad responsibilities in the health field in time of national emergency.

MISCELLANY

Researchers and clinicians from many sections of the U. S. met here Oct. 27 to lay the groundwork for new research on the effects of tran-

quilizers on children, both normal children and those emotionally disturbed or mentally retarded. Meeting was sponsored by the Psychopharmacology Service Center, National Institute of Mental Health. . . . OCDM has made a grant of $80,000 to the National League for Nursing for the purpose of demonstrating the curriculum content needed for civil defense education in nursing programs. . . . Groups planning participation in the 1960 White House Conference on Children and Youth have available a 20-page pamphlet setting out objectives and procedures. The conference headquarters is at 330 Independence Avenue S.W., Washington 25, D. C. . . . The newly created post of scientific director of the Food and Drug Administration has been filled by Paul L. Day, Ph.D., biochemist at the University of Arkansas School of Medicine. . . . The navy certificate of merit has been presented to E. R. Squibb & Sons for an exhibit titled "A Century of Naval Medicine." The firm, in turn, has presented to the National Naval Medical Center at Bethesda, Md., a portrait of Dr. Edward Robinson Squibb, who served as an assistant surgeon of the navy from 1847 to 1857.

PHS has found a "general indication of a trend" toward increased use of tuberculin skin testing in place of mass chest X-ray campaigns . . . . Eight virologists are on a nine-week poliomyelitis study course in the United States and Canada. They are from Russia, Chile, Egypt, Nigeria, Poland, Lebanon, Austria and French Equatorial Africa . . . Appointments — Capt. Leo J. Elsasser as chief of the Navy Medical Service Corps, Francis Boyer (board chairman, Smith, Kline & French) to the National Advisory Arthritis and Metabolic Diseases Counell . . . A recalculation of water pollution control allocations shows the U.S. will pay the maximum toward projects in five states and territories of the lowest per capita income, Alabama, Arkansas, South Carolina, Puerto Rico and the Virgin Islands, and the minimum one-third to the two highest income states, Connecticut and Delaware. Other states' shares vary within 33⅓ and 66⅔ per cent . . . Public health service reports that none of its completed or current tests of water and air for radiation shows a dangerous level. Federal Trade Commission has banned advertising claims that Chesterfield cigarets are "milder" or that they have no adverse affect on nose, throat or accessory organs.



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

PHYSICIANS MUST LEAD IN SOLVING SOCIAL, ECONOMIC PROBLEMS

SEVERAL hundred physicians became "patients" here today as eight experts diagnosed their social, economic and civic "health" in a unique meeting.

The experts' prescription:

Doctors can no longer rely solely on cultivating clinical skills. They must take the responsibility for improving their relationships and developing medical services that answer the changing needs of American society.

The experts' warning:

Their professional future dictates that doctors find the time now to educate themselves on their individual and social responsibilities, lest they abdicate medical leadership entirely tomorrow.

The experts' prediction:

American physicians have the wisdom and resources to meet the challenge of these new social and economic problems in medicine.

The occasion was a forum on "The Doctor and His Practice" co-sponsored by the Erie, N. Y. County Medical Society and The Wm. S. Merrell Company, Division of Vick Chemical Company, at the Statler Hilton Hotel.

Doctors attending the meeting were counselled on improving their dealings with patients, staff and community; their office and business management procedures; protecting themselves against professional liability suits; selecting their investments, insurance and planning their estates.

Here are the highlights of the experts' diagnosis:

Human Relationships

According to Woodrow Wirsig, editor of Printers' Ink, New York, a survey of editors discloses the feeling that "medicine today is dangerously impersonal." Many editors, Mr. Wirsig said, "receive a flood of 'help-me' letters" from people who are desperately in need of a "personal relationship with a doctor they can trust as a friend and counselor."

As a yardstick for professional action, Mr. Wirsig urged that doctors undertake a continuing study of the public's attitude toward medicine and "what people want from doctors."

Treatment of the patient "begins in the waiting room," John Sedgwick, Chicago medical office management consultant, told the physicians' meeting. "The patient expects consideration for his comfort as well as his ills. Nobody likes to be kept waiting too long, including the patient," Mr. Sedgwick pointed out. This consideration might even logically begin outside the office, with adequate provision of parking facilities for the patient, he added.

Lawsuits Against Doctors

"Medical malpractice litigation has come of age and is now big business," R. Crawford Morris, veteran Cleveland attorney, told the forum. In the light of subsequent findings, he asserted, "95 per cent of these cases are completely unjustified."

Urging physicians to "be as careful with your tongue as you are with your scapel," Mr. Morris offered these rules to help doctors prevent liability suits:

1. Never guarantee a cure unless you mean to be held to it.
2. Watch the time factor. In most states, the patient has one year within which to sue you for malpractice, whereas you have six years within which to sue her for your bill. (In Arizona, the patient has two years, the doctor has three years).
3. Keep up with the advance of medicine.
4. But do not experiment unless you have the patient's permission in writing.
5. Get the patient's consent for everything you do, preferably in writing.
6. Good housekeeping. Keep good records, full and adequate.
7. Do not be negligent. If you feel the case is beyond your experience, do not hesitate to call for a consultation and make a written record of the consultant's opinion.

Investments by Physicians

"Change, ruthless and sudden" is the dominant note in the investment markets today, John G. Forrest, business and financial news editor, the New York Times, told the audience. Securities can no longer be bought for long-term holding and forgotten, Mr. Forrest said.

"Physicians must set aside a day from time to time throughout the year to review their portfolios with their financial advisors," he emphasized. "There is no other way to protect and maintain the growth value of an investment."

The physician's "own personality" must be the key to his investment approach, Carl Holzheimer, Chicago investment consultant to the American Medical Association, advised the meeting. Pro-

fessional investment counsel, "like good medicine," is expensive, but highly desirable, for doctors, Mr. Holzheimer said.

An awareness of "inflationary risks" in today's market, coupled with sound diversification of holdings, is paramount for the investing doctor, according to Mr. Holzheimer, a partner in Security Supervisors, Inc.

Other speakers at the all-day forum were:

Samuel Polsky, associate professor, Temple University Law School, and director, Philadelphia Medico-Legal Institute.

Dr. A. D. Kelly, general secretary, Canadian Medical Association, Toronto.

Amiel Caplan, estate planning consultant, Solomon Huber Associates, New York.

The meeting was an outgrowth of the pioneering medico-legal film series produced by the AMA's law department in co-operation with The Wm. S. Merrell Company. Many medical audiences have already seen the first three films in the series, "The Medical Witness," "The Doctor Defendant," and "The Man Who Didn't Walk."

BLUE SHIELD — WHAT HAVE WE PROVED?

THE EARLIEST statewide pre-payment plans for medical care were started just 20 years ago, and this seems like an appropriate time for us physicians to tote up our achievements in creating and sponsoring the mechanism we call Blue Shield.

What, essentially, have we accomplished through Blue Shield?

Most obvious is the fact that through our Blue Shield Plans, we are helping one out of every four people in the U.S.A. to prepay for basic medical service.

Through these plans, we physicians have set the pace and pattern for the evolution of the entire voluntary medical care insurance program in the U.S.A.

Through Blue Shield, we have proved that medical care can be pre-paid by voluntary co-operation of doctor and patient on a nation-wide scale — with free choice of physician for the patient, fee-for-service for the doctor, and a private confidential relationship between them — and that the American people like it that way.

Through Blue Shield, we have shown that patients and doctors don't need any outside agency to bring them together, and that no one but the patient himself needs to profit from prepaying his medical care costs.

Through Blue Shield, it is fair to say that we doctors have given our fellow countrymen perhaps the most convincing demonstration of the past 20 years that, working together voluntarily, we can solve even our most urgent and complex social problems within the framework of our private enterprise system in the U.S.A.

BLUE CROSS — BLUE SHIELD

PICTURED are two happy fellows, L. Donald Lau, executive director for Arizona Blue Cross-Blue Shield, and Robert R. Rinehart, director of public relations.

Mr. Lau is in the process of putting the trophy he is holding in line with the other five on the display table. These six trophies represent the best overall public relations program of any Blue Cross-Blue Shield plan in the country with less than 200,000 members each of the last six years.

In addition the plan has won seven other



Left to right: L. Donald Lau, Executive Director, Arizona Blue Cross-Blue Shield and Robert R. Rinehart, Director of Public Relations.

awards for specific public relations projects since 1951. The awards are an annual presention at the national public relations and enrollment conference of Blue Cross-Blue Shield plans throughout the United States and Canada. They are made by the Blue Cross Commission of the American Hospital Association and the Blue Shield Medical Care Plans, Chicago.

The Arizona entry delt with advertising, newspaper publicity, employe relations, hospital and medical relations, member relations and public service. It was nearly 200 pages of material, covering the past year of activities.

This marked the 16th award for Mr. Rinehart. He formerly served with the Columbus, Ohio and New Mexico plans, and has been affiliated with the Arizona plan since 1952.

NATIONAL CANCER RESEARCH FOUNDATION

GEORGE S. Zuccala, Sc.D., of the National Cancer Research Foundation, with which he is associated, has requested state and territorial health departments to conduct cancer tests according to the "Zuccala Lytic" method. It is the understanding that he has stated that he is attempting to cover every state in the United States and a few nations abroad to find out what causes the phenomena which he has observed in body sera.

In the event any requests for information concerning Mr. Zuccala or his method are received by you, it is suggested that they be forwarded to Dr. Clarence Salisbury.



HOSPITAL BENEFIT ASSURANCE
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MEDICAL DIRECTOR
DUKE R. GASKINS, M. D.

Re: Fees

Dear Doctor:

I would like to point out that we here at HBA make no attempt to set the fee which a doctor should charge for any given procedure or service. We at HBA do not wish to disturb the physician-patient relationship.

HBA does have two sets of surgical fees which may be payable according to the coverage purchased by the insured. The first plan is our original Standard Surgical Plan and the second plan, our Preferred Surgical Plan, pays 50 per cent greater than the first plan. We have encouraged all our old policyholders to change over to the new plan. Many have failed to do so. All people now enrolling for HBA are being given the Preferred Surgical Plan.

The fee paid by HBA is merely the amount that we have agreed to reimburse the patient for having a certain operation performed. The Surgical Form given to the patient for you to fill out states, "Amounts in excess of that payable according to our schedule of surgical benefits should be billed to the patient."

Very truly yours,

THE H.B.A. LIFE INSURANCE COMPANY

Duke R. Gaskins, M.D.

Duke R. Gaskins, M.D.
Medical Director

DRG:rr

P.S. Incidentally, the Preferred Surgical Plan also provides payment of $5.00 a day for in-hospital doctor calls when surgery is not needed.

UNIVERSITY OF ARIZONA

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CENTRAL REPOSITORY FOR MEDICAL CREDENTIALS

THE World Medical Association has initiated a program which the American Medical Association commends to your attention.

On July 1, 1958, the services of a central repository for medical credentials became available to doctors of the world. During war and national uprisings, medical records are often lost or destroyed. Because of this, many doctors are today unable to utilize their professional skills because of the loss of destruction of their original credentials and a lack of a protective service in which authenticated copies could be deposited. Therefore, the World Medical Association has undertaken a program to assure that the doctor will always be able to prove himself medically trained and fully accredited to practice medicine.

In the United States, the lifetime cost of the service on a one-payment basis to the newly graduated doctor is approximately $60. An actuarial schedule has been established for doctors in the various age groups. A 10-year service rate is also available.

Repository officials suggest that the credentials deposited include official medical school record, medical diploma, and specialist credentials, American doctors should *not* send their original credentials, but should send photostatic, microfilm, or notarized copies of their original credentials.

Requests for forms and additional information in regard to the Central Repository for Medical Credentials is available from the World Medical Association, 10 Columbus Circle, New York 19, N. Y.

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HILL-BURTON GRANTS

THE department of health, education, and welfare reports that as of Sept. 30, the status of all Hill-Burton grants for the state of Arizona is: None.

Approved, but not yet under construction, 24 projects at a total cost of $16,343,471, including $5,287,467 federal contribution and designed to supply 989 additional beds.

Under construction, 10 projects at a total cost of $4,045,063 including federal contribution of $1,562,089 and designed to supply 187 beds.

Caompleted and in operation, three projects at a total cost of $3,438,815, including federal contribution of $875,000 and supplying 170 additional beds.

AMERICAN CANCER SOCIETY

THYROID AND BREAST CA

DR. BARBARA B. JACOBS of the University of Colorado School of Medicine has found that mice with breast cancer have depressed thyroid gland activity.

This decreased thyroid activity resembles that which occurs after breeding and in the ageing process in the animals. There is no way of telling whether thyroid depression is the cause or effect in all three processes. The susceptible mice usually develop breast cancer only after they have had several litters and have reached their prime of life.

Dr. Jacobs found that thyroid hormone production fell off in breeding animals and in ageing animals. The biggest drop of all, however, was in mice with cancer. Mice of the cancer-resistant strain, including old and breeding animals, had much more active thyroids than those of the cancer-susceptible strain.

The results of this study are of value because relatively little is known about the role of the thyroid gland in cancer. The bulk of hormone studies have been on other glands.

Two other research groups have reported that the thyroids of rats become less active with age, and a third group found a similar phenomenon in ageing white mice. Another group has said that thyroid activity slows down in rabbits when cancer-inducing and wart-inducing tars are applied to the skin and in mice with spontaneous or transplanted cancers.

Whether these findings apply to humans is speculative. Breast cancer is commonest in mice which have been mated; in humans the reverse is true — it is more common in spinsters than in women who have borne and nursed children.

REGENERATION OF AN EXTREMITY?

A Cornell University scientist has advanced the possibility that man some day may be able to regrow a lost arm or leg. This suggestion, discussed in detail by Dr. Marcus Singer of Cornell University in the October issue of Scientific American, is based on studies in which he caused a young adult frog to regenerate a new leg, although ordinarily it cannot.

Salamanders, fish, and other lower vertebrates regenerate a body part after it is amputated. These growths in their early stages closely resemble cancerous growths, but unlike cancers, they eventually stop enlarging and are converted into a useful body part.

Regeneration of tissues, like skin, muscle and bone, occurs readily in higher forms; but only some internal organs, such as the liver, can regenerate.

In cases where regeneration of limbs does occur, the nerve controls the growth in large part. If the stump is paralyzed in a salamander, the leg or arm does not regenerate.

Dr. Singer, after years of studying this nervous influence on regeneration has found that one reason why the frog cannot regrow an arm, although the tadpole can, is that there are not enough nerves in the arm.

The scientist decided to re-route some nerves from the leg of a young frog to the stump of the arm. Following this surgery, the frog regrew its arm.

These results and others showed that the nerves produce a substance important for growth. The basic observations on the nature of the growth by Dr. Singer and other scientists have uncovered factors in the growth of tissues and organs which may supply hints as to how cancer breaks away from the control of the body to grow wildly.

CANCER IMMUNIZATION WITH IRRADIATED CA CELLS

SCIENTISTS at the University of California at Los Angeles have immunized mice against cancer with x-rayed cancer cells.

This was disclosed by Drs. Ralph W. McKee, Eugene Garcia, M. Richard Troeh and William Schultz of the Department of Physiological Chemistry in the UCLA School of Medicine.

They found that the x-rays used did not kill the cancer cells, but rather altered them so that they became a potent vaccine which stimulated the mice's natural resistance to them.

More than 90 per cent of the mice given a series of five or more "shots" of x-rayed cells were immunized against later transplants of unirradiated cancer. Something, presumably antibodies, in these vaccinated mice completely destroyed enormous and vigorously growing cancers later injected.

The McKee group employed in these experiments a type of cancer in which the cells grow singly and suspended in a fluid which fills the belly cavity. The cancer is almost but not quite 100 per cent fatal, and death takes place in untreated animals about 14 days after inoculation.

The fact that a mouse occasionally escaped death because its natural immunity was strong enough to overcome the cancer induced the scientists to explore the possibility of strengthening the animals' resistance to the disease. They made a variety of vaccines — with cancer cells which had been frozen and thawed, dried out, ground up finely, shattered by super-sonic waves and injured or killed by other means. None of these vaccines worked.

Then they tried vaccines made from x-rayed cancer cells.

The scientists found that x-ray doses totaling 2,000 to 4,000 roentgen units wrought conspicuous changes in the cancer cells and rendered them temporarily incapable of causing cancer. The cancer cells were "stunned" and helpless for a few days following irradiation, and during these few days the mice began to produce antibodies against the damaged cells. By the time the irradiated cancer cells recovered and began to grow again, it was too late — antibodies already were beginning to overwhelm them and their destruction was inevitable.

It took almost a week for the mouse to fully mobilize enough antibodies for a successful attack against an injection of irradiated cancer cells. If the irradiated cells were withdrawn anywhere from two to six days after being injected into one mouse and then injected into an unvaccinated mouse, they grew rapidly and killed their new unprotected host in from 18 to 23 days.

The vaccine has been effective on only this kind of mouse cancer. It does not apply to other mouse cancers or to other species.

It is not known whether this kind of vaccine would prevent a spontaneous cancer from arising in mice — it has been used against only one kind of transplanted mouse cancer. The results do not imply that a vaccine is possible for cancer in humans, who are subject to several hundred kinds of malignancies.

Nevertheless, the studies make an important contribution to a growing understanding of immunity and its role in cancer. They afford additional proof that cancer is a problem of host resistance as well as cell alterations, that x-rays may prove useful in the preparation of vaccines and that multiple shots may be necessary to immunize against animal transplanted cancers.

The experiments showed that in "stunning" the cancer cells, x-rays changed the manner in which cells use oxygen and sugars.

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MUTATION OF GENES BY HEAT

COLUMBIA University scientists, Dr. Stephen Zamenhof and Dr. Sheldon Greer of the Department of Biochemistry at the university's College of Physicians and Surgeons, have mutated cells with temperatures of 140 degrees (Fahrenheit); and they have traced the mutation-wrought chemical changes in the genes.

Many scientists believe that the cancer cell is a body cell which has mutated. These findings raise — but do not answer — the question of whether environmental temperature, alone or in combination with light, radiation and certain chemicals, is an important cancer-inducing factor.

The Columbia group used common intestinal bacteria in these experiments. They pre-treated the bacteria in several ways — including giving them a high-sugar environment or spinning and dehydrating the cultures. Then they placed them in a corked test tube and kept them in a 140-degree bath for two or three hours.

The number of bacteria which survived the high temperatures varied from one in a few hundred to one in many thousand. Most survivors had become mutants — they now required in food some of the sugars and other dietary requirements they once could make for themselves, they were small and so were the colonies they formed, in many ways they looked different from brother bacteria which had not undergone the heat treatment. Their offspring inherited the same characteristics.

A peculiar property of the heat-induced mutants was that they could not easily take high temperatures. When they were subjected a second time to high temperatures they died quickly. The non-mutants survived better. This and other observations indicated that the survivors were the product of mutation, not of selection due to natural heat resistance.

Some of the mutants were unstable. They reverted back toward normal or mutated further into more bizarre forms. In this regard, they resembled mutant bacteria which Dr. Zamenhof had produced earlier by feeding them an artificial chemical, 5-bromouracil, which substituted for thymine, one of the chemicals which make up genes. The 5-bromouracil mutants were grotestque monsters.

It is difficult to say at this time what application, if any, these studies may have to cancer in humans. They could indicate — but not prove — that temperature, along with light, may be one explanation for the fact that there is five times as much skin cancer in the warm and sunny Southwest as in the Great Lakes area.

The production of unstable mutants, which are subject to die easily even by the force which mutated them, might explain why cancer cells are vulnerable to anti-cancer drugs, which in many cases are also cancer-producing and mutation-producing agents.

HIGHLIGHTS FROM THE SIXTH ANNUAL ANTIBIOTIC SYMPOSIUM*

NEW antibiotics for resistant staphylococcus infections and the latest advances in antitumor agents highlighted the sixth symposium on antibiotics.

During the three-day symposium, 181 scientific papers were presented by investigators from all parts of the United States and 14 foreign countries. The symposium coincided with the 30th anniversary celebration of the discovery of penicillin.

Chairman Henry Welch, Ph.D., called on world leaders in antibiotic research and development to sum up the accomplishments of the past and to outline the work yet to be done. Among the speakers were Sir Howard W. Florey, who first applied Fleming's discovery to clinical medicine and who introduced penicillin into the United States; Dr. Selman A. Waksman, in whose laboratory streptomycin was discovered; Dr. Chester S. Keefer, who organized and administered the first clinical programs on both penicillin and streptomycin; and Dr. Harry F. Dowling, a recognized leader in the antibiotics field.

These authorities concluded that, despite dramatic lifesaving accomplishments with antibiotics, much remains to be done — in extending their prophylactic and therapeutic roles, in studying factors affecting bacterial growth and metabolism, in understanding the causes of bacterial resistance, and in determining the basic mode of action of drugs against pathogenic organ-

*Chairman, Henry Welch, Ph.D. Sponsored by the journals Antibiotics & Chemotherapy and Antibiotic Medicine & Clinical Therapy.

isms. These problems must be overcome for the bright promise of antibiotics to be fulfilled.

Successful Therapy

Successful therapy with vancomycin in seven of 10 patients critically ill with staphylococcus infections was reported by Ehrenkranz of the University of Miami. In nine patients, the infection appeared to be life-threatening. Use of vancomycin followed treatment failures with two or more antibiotics administered for a minimum of five days. After an initial dose of 1 to 2 Gm. of vancomycin, 500 mg. were administered at six to eight-hour intervals for a seven to 16-day period. No development of vancomycin-resistant staphylococci was observed. Side-effects included a maculopapular rash in two patients, erythema and fever in one, and thrombophlebitis in one. Ehrenkranz postulated that the clinical efficacy of vancomycin may be due either to an increased penetration of the antibiotic into the infected site or to an accumulation of the drug which results in high body concentrations and/or pronounced bactericidal effect.

Furmethonol emerged as the most promising compound in a study designed to determine the effects of nitrofurans on antibiotic-resistant staphylococci. Kefauver and his associates found this drug to be effective against certain bacterial species, including staphylococci, vibrios, diplococci, and coliform bacteria. Furmethonol was reported to be immediately bacteriostatic to staphylococci and bactericidal within two to four hours, depending upon the drug concentration employed.

The neurotoxicity which sometimes occurs with large doses of cycloserine can now be controlled by pyridoxine. According to Epstein and his associates, the lifesaving properties of cycloserine in drug-resistant tuberculosis led to a search for ways to lessen its neurotoxic effects. Under study were 27 advanced, drug-resistant, cavitary cases of pulmonary tuberculosis. All were given 2 Gm. of cycloserine and 300 mg. of pyridoxine hydrochloride per day. Untoward reactions in 13 patients included slight and temporary mental confusion, dizziness, tremors, and hyper-reflexia, but in no case was it necessary to discontinue therapy permanently. There were no convulsions. The investigators concluded that the salutary effects of pyridoxine are pharmacologic rather than vitaminic in nature. They felt that this new regimen allows the successful treatment of tuberculosis due to drug-resistant bacilli and permits the rehabilitation of a large percentage of the patients who are otherwise doomed to invalidism and early death.

Remarkable speed, certainty, and intensity of antibacterial effectiveness have been revealed with a new propionate derivative of erythromycin. The clinical significance of this research achievement, which began six years ago, was disclosed by Griffith in confirming clinically the laboratory investigations reported earlier by Stephens and Conine and the phramacologic promise shown in studies presented by Lee et al.

Peak levels with the new derivative were reported to be three to four times higher than levels with erythromycin. In more than 1,000 determinations in 250 subjects, every patient showed antibacterial activity in the blood. No significant cumulative effect was observed with repeated 250-mg. doses. Therapeutic results in clinical trials in 40 patients indicated that the propionate was highly effective. Even though oral doses of 2 Gm. daily have been given for one month, no signs of toxicity or severe side-effects have been observed.

The explanation of these antibacterial superiorities appears to be that, for the most part, biliary excretion of the propionate is only about one-tenth that observed with erythromycin despite the higher blood concentrations. This has been shown in both animals and humans.

Perry and co-workers, of the University of Washington, provided further clinical proof. In 13 triple crossover studies, earlier, higher, and more prolonged serum levels were observed, with peak concentrations three times as high as those with erythromycin. The investigators emphasized that the propionate was "more uniformly absorbed" and produced "a more predictable response" than was previously attainable. Another series of 20 patients, most of them with pneumonia, were treated with the propionate, and results showed that it was effective and well tolerated. Responses were "consistent and predictable," and gastro-intestinal irritation was not observed.

Kunin described studies done by Finland's group at the Thorndike Memorial Laboratories in Boston. They confirmed that the propionate was much more rapidly absorbed and that it provided higher antibacterial levels than either erythromycin or triacetyloleandomycin.

Griffith also pointed out that triacetyloleandomycin preparations provide definitely less anti-

bacterial effect in the serum than either erythromycin or the new propionate derivative. The propionate produced four to 16 times as much antimicrobial activity in the serum as triacetyloleandomycin.

Dr. Kirby then commented that graphs have recently appeared which show higher levels with triacetyloleandomycin and that these represent an "apparent discrepancy" in data. He illustrated his point with two graphs. One showed that triacetyloleandomycin gave higher blood levels in micrograms than did erythromycin and levels that were almost as high as the propionate. However, the second graph showed the relative antibacterial activity of these agents in the blood. In this case, the antimicrobial effectiveness of triacetyloleandomycin was clearly shown to be only one-tenth that of erythromycin, despite the apparently contradictory blood levels.

Subsequently, Dr. Maxwell Finland and Dr. Monroe J. Romansky added comments on this point, again stressing that the blood levels that many physicians usually depend upon may be misleading when they show only the micrograms of drug in the blood. They urged that the level of antibacterial activity (as determined by testing the serum against pathogens) be compared instead, since this is the essential consideration in treatment of infection.

The drug of choice in severe antibiotic-resistant staphylococcus infections is new vancomycin, according to a study by Kirby and his associates at the University of Washington. They reported that ristocetin and kanamycin are definitely less active than vancomycin in vitro, according to comparative studies. In 30 patients with severe staphylococcus and streptococcus infections, results were generally considered to be excellent and often dramatic in instances in which othr antibiotics had failed. Dosage was 2 Gm. daily for 10 days and 1 Gm. daily thereafter. No vancomycin-resistant staphylococci have been encountered by the investigators, and relatively few side-effects were observed.

According to Pilheu and his associates, of Buenos Aires, Argentina, a therapeutic combination of corticosteroids and antituberculosis drugs was of benefit in treating tuberculosis. The speaker held that a new cortical hormone, triamcinolone, is most effective. However, when the hormone is used, it is necessary that the organisms be sensitive to the antituberculosis drug, that isoniazid be included in the treatment, and that blood glucose be at a normal level.

Mitomycin C might be promising as an antitumor antibiotic. This conclusion was reached by Shiraha and his associates, of Osaka, Japan, following a study of 82 patients with advanced malignancies. A new active principle was isolated from broth cultures of *Streptomyces caespitosus*. These investigators noted regression of tumor and general improvement. There was increase in activity and weight, reduction of ascites, increase of urinary output, and relief of pain, nausea, and vomiting. Leukopenia was the most frequent side effect.

A new antibiotic, actinobolin, shown to have antitumor activity, has been tested against two transplantable human tumors grown in rats. Teller and his co-workers, Sloan-Kettering Institute for Cancer Research, observed moderate to good growth inhibition of both tumors when the compound was administered intraperitoneally 24 hours after transplantation. There was little or no effect on established tumors when the initial dose was given four days following transplantation, or when the drug was administered orally.

This was the major question facing seven leading authorities during a panel discussion on the current status of available antibiotics for use in staphylococcus diseases. They agreed that vancomycin is the most effective in severe staphylococcus infections.

The panel was comprised of Drs. Maxwell Finland (moderator), E. L. Foltz, J. E. Geraci, W. M. M. Kirby, E. L. Quinn, M. J. Romansky, and E M. Yow. The reason for the effectiveness of vancomycin was summed up by Kirby in this way: It is effective in lower concentrations than other antibiotics; it is more bactericidal, provides high effective blood levels, has minimal side-effects, does not exhibit cross-resistance, and is successful and impressive in its results.

Discussing triacetyloleandomycin, Quinn showed that, although it yields higher blood levels than erythromycin, antibacterial activity in the serum is considerably lower than that seen with erythromycin.

Romansky reported good clinical results with ristocetin, especially in difficult septicemia cases. He stated that with doses of 25 to 50 mg. per Kg., side-effects do not usually occur.

According to Yow, kanamycin is rapidly absorbed after intramuscular administration but poorly absorbed when given orally. He con-

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cluded that its use is beneficial in staphylococcus infections as well as in those caused by proteus and other gram-negative bacilli. Toxicity includes renal complications, auditory loss, and eosinophilia.

Concerning the problem of single or combined therapy, the panel agreed that the new bactericidal antibiotics (such as vancomycin and ristocetin) used alone may be preferable to combined therapy. They also agreed that fixed combinations are not practical. It was generally felt that routine use of antibiotic prophylavis in surgical procedures is not advisable. Kirby held that the advent of the new bactericidal antibiotics might warrant a re-evaluation. Foltz saw an indication for prophylactic use in selected cases only. It was emphasized that antibiotic prophylaxis does not serve as a substitute for aseptic technique. The panel unanimously concurred that sulfonamides have no place in the treatment of resistant staphylococcus infections.

Some of the best-known edible puffballs may contain important tumor inhibitors, according to a preliminary report by Reilly and her co-workers. Principles which retard the growth of mouse sarcoma have been found in several species of sporophores. The nature of the active principles is not yet known.

A nonantibiotic agent, phenacridane chloride, active against antibiotic-resistant staphylococci, was described by Grutter, who stated that many minor infections of the skin involve staphylococci. Therefore, a number of antibiotic-resistant staphylococci were gathered from several sources and checked to determine their sensitivity to commonly used antibiotics as well as to phenacridane chloride. Although many of the stains tested were resistant to more than one antibiotic, all strains tested were sensitive to phenacridane chloride. It was concluded that this new agent should prove to be useful in topical therapy.

Welch and associates discussed in-vitro studies of leucomycin, a new antibiotic discovered in Japan. Using the serial dilution tube method, they tested the susceptibility of 200 *Staphylococcus aureus* cultures and 47 other cultures to the action of leucomycin. Leucomycin was active against streptococci and most strains of *Staph. aureus* tested, many of which were resistant to penicillin and other antibiotics.

Subsequently, Steinberg et al., reported that they had independently isolated an antibiotic, which they labeled C-637, that had been found identical to leucomycin. The authors concluded that the drug is worthy of further study.

Marked local antibacterial activity has been noted with a new bis-quaternary compound derived from beta ionone. Edelson and his coworkers studied 161 patients with pyoderma treated with a topical ointment containing .01 per cent of this compound in a carbowax base. Sixty-one per cent were classified as cured, 21 per cent were markedly improved, and 10 per cent showed moderate improvment, whereas 8 per cent were considered failures. Bacteriologic studies of skin lesions before and after treatment in 30 patients revealed an 84 per cent "bacteriologic cure." The investigators concluded that the new compound is an "effective and safe topical preparation for the treatment of local bacterial infections."

High plasma concentrations with a new, long-acting sulfonamide were reported by Boger. The drug, referred to as sulfadimethoxine, is rapidly absorbed following oral administration. Levels above 10 mcg. per 100 ml. were maintained for at least 24 hours following single oral doses. According to the investigator, the drug promises great flexibility in oral dosage for the therapeutic and prophylactic uses for which sulfonamides have been found effective.

BOOK REVIEWS

OPHTHALMIC PLASTIC SURGERY
by Sidney A. Fox, M.D. 2nd ed. 324 pages. Illustrated. (1958) Grune & Stratton. $15.

In this extensively revised and enlarged edition, Dr. Fox brings his earlier volume completely up to date, presenting the latest methods and techniques known to this important branch of the specialty — all based on his own experience and using only those procedures that have proved satisfactory in his hands.

Stacey's Medical Books, San Francisco, Calif.

PORTAL HYPERTENSION
by Alan Henderson Hunt, FRCS. 230 pages. Illustrated. (1958) Williams & Wilkins. $8.50.

From personal experiences with 250 unselected consecutive patients the author analyzes new findings and assesses new methods of treatment. Many illustrations include charts, venograms, and photographs. The author is Surgeon, St. Bartholomew's and the Royal Marsden Hospitals, and late Hunterian Professor, Royal College of Surgeons, London.

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ARIZONA ACADEMY OF GENERAL PRACTICE

OFFICERS for 1958-59: President: Frank A. Shallenberger Jr., Tucson, President-elect; Samuel Hale, Phoenix. Vice president: A. V. Dudley, Jr., Tucson, Secretary; Noel Smith, Phoenix, Treasurer: V. Eugene Frazier, Mesa.

Board of Directors: E. B. Jolley, Bisbee, term expires, 1959; A. H. Tallakson, Phoenix, term expires, 1960; and James E. Brady, Tucson, term expires, 1961.

AMERICAN SOCIETY OF INTERNAL MEDICINE

DR. Elbert L. Persons of Durham, N. C., president of the American Society of Internal Medicine, announced the appointment of Robert L. Richards, of Harrisburg, Pa., as the first full-time national executive secretary for the society to be effective Jan. 1, 1959.

"Since the society was officially organized in Boston in 1957, this is the first major administrative move this society of 5,000 members has taken to assure itself that the specialty of internal medicine will be recognized for its contribution to the solution of medical care problems of the nation," stated Dr. Persons, who attended a meeting of the board of trustees of the society in New Orleans prior to the meeting of the Southern Medical Association.

A VERSE

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LOCATION INQUIRIES

DRAUGHON, CLYDE WILLIAM, M.D., McGuire Hospital, Box 27, Richmond 19, Va.; *GS* 1954 graduate of University of Oklahoma School of Medicine; interned at Mercy Hospital, Oklahoma City, Okla.; served residency at VA Hospital in Oklahoma City; holds a license in the state of Oklahoma. Fulfilled his military obligations; age 35; married; interested in general surgery or group practice. Available July 1, 1959.

HANCOCK, JOHN J., M.D., 211 North Riverside Drive, Iowa City, Lowa; *R;* 1954 graduate of State University of Iowa; interned at Tripler Army Hospital, Hononlu, TH; served residency at University of Iowa, University Hospitals Iowa City; fulfilled his military obligations; holds license in state of Iowa. Thirty-one years of age; married; interested in associate practice. Available Jan. 1, 1959.

KLINE, OWEN FOSTER JR., M.D., 4712 Warrington Drive, Flint, Mich.: *S;* 1954 graduate of University of Colorado; interned at Hurley Hospital in Flint, Mich.; served residency at Hurley Hospital; holds license in the states of Colorado and Michigan, fulfilled his military obligations. Interested in private or group practice. Available July 1, 1959.

RIDGWAY, DON NEAL, M.D., 713 Emerson Street, Saginaw, Mich,: *GP;* 1954 graduate of Ohio State University; interned at Butterworth Hospital in Grand Rapids, Mich.; served residency at St. Mary's Hospital in Saginaw, Mich.; holds license in state of Ohio; Basic Science certificate in Michigan; fulfilled military obligations; 29 years of age; married. Interested in associate or group practice. Available after July 15, 1959.

RUSSELL, JAMES L., M.D., 820 Park Street, N.W., Miami, Okla.; *GS* or *TS;* 1949 graduate of St. Louis University School of Medicine; interned at Charity Hospital of Louisiana in New Orleans; served residency at Charity Hospital of Louisiana; holds licenses in Missouri and Louisiana; fulfilled his military obligations; 31 years of age; married. Interested in general surgery or thoracic surgery. Available January 1959.

LOCATION OPPORTUNITIES

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GILA BEND — Pop, 2,500 — 80 miles west of Phoenix — nearest town to the Painted Rock Dam Project. Good opportunity for general practitioner. Cattle, cotton, and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HAYDEN — Pop. 3,000/4,000. Industrial practice — approximately 200 employes and dependents. Only part-time required. Coverage: Metropolitan Surgical Plan. Physician may engage in private practice also. Small company-owned clinical building (new) available for use, with X-ray equipment, diathermy equipment, etc. Full-time nurse available to assist; clerical work to be handled by company. Company housing facilities available for physician — small rental. Contact: American Smelting & Refining Company, Mr. Ben Roberts, Department Manager, P. O. Box 1111, El Paso, Texas.

HOLBROOK — Population above 7,000. Located in the heart of the northeastern pine country of Arizona on U. S. Rt. 66. Need services of GP. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

MIAMI — Opportunity for GP. Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community near New Mexico-Arizona border. Pop. 10,000. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

SAFFORD — Graham County Health Department in need of an M.D. In the heart of the cattle and farming areas of southeastern Arizona. Population of 10,500 and elevation is 2,920. Schools, churches and social facilities are numerous. Contact Mr. Verl Lines, Chairman, Graham County Board of Supervisors, Safford, or Frederick W. Knight, M.D., 618 Central Avenue, Safford.

ST. JOHNS — Seriously need a doctor of medicine, preferably a general practitioner, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. Peter Falbo, president, chamber of commerce, 9112 West Van Buren St., Tolleson, Ariz.

TUCSON — The VA Hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., Director, Professional Service, VA Hospital, Tucson, Ariz.

TUCSON — Young man interested in the practice of internal medicine for junior associateship, Southwestern Clinic & Research Institute, Inc. Excellent opportunity to achieve qualification in the specialty of internal medicine. Contact Charles A. L. Stephens Jr., M.D., 2430 East Sixth Street, Tucson, Ariz.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Ariz.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Findlay, M.D., San Manuel Hospital, San Manuel, Ariz.

BOOK REVIEWS

VITALLIUM MOULD ARTHROPLASTY FOR OSTEOARTHRITIS OF THE HIP JOINT
by **Arnt Jackobsen**, M.D. 238 pages. Illustrated. (1957) Macmillan. $9.

A comprehensive summary of our knowledge of osteoarthritis of the hip includes an intelligent and searching review of what happens to patients with corrective vitallium mould arthroplasty. Many X-rays, drawings, and tables of statistics illustrate the 301 cases studied.

Stacey's Medical Books, San Francisco, Calif.

SURGERY OF THE CHEST
by **Julian Johnson**, M.D., and **Charles K. Kirby**, M.D. 2nd ed. 398 pages. Illustrated. (1958) Year Book. $9.75.

This well-known atlas of surgical operations now adds the changes in techniques which have occurred in the last six years. New operations made possible by hypothermia and extracorporeal circulation are described in detail. Physiologic mechanisms pertinent to thoracic surgical procedures are discussed.

Stacey's Medical Books, San Francisco, Calif.

INTERNATIONAL SOCIETY OF HEMATOLOGY
edited by **A. Richardson Jones**. 930 pages. Illustrated. (1958) Grune & Stratton. $25.

Important complete manuscripts from the Proceedings of the Sixth International Congress, Boston, August 1956 are collected in this volume, along with abstracts of recent investigations of the anemias, leukemias, nucleonics, hemorrhagic disorders, and immunohematology. Fine charts, figures, and photographs are included in some of the essays.

Stacey's Medical Books, San Francisco, Calif.

HERMAPHRODITISM, GENITAL ANOMALIES, AND RELATED ENDOCRINE DISORDERS
by **Howard W. Jones**, M.D. and **William Wallace Scott**, M.D. 456 pages. Illustrated. (1958) Williams & Wilkins. $16.

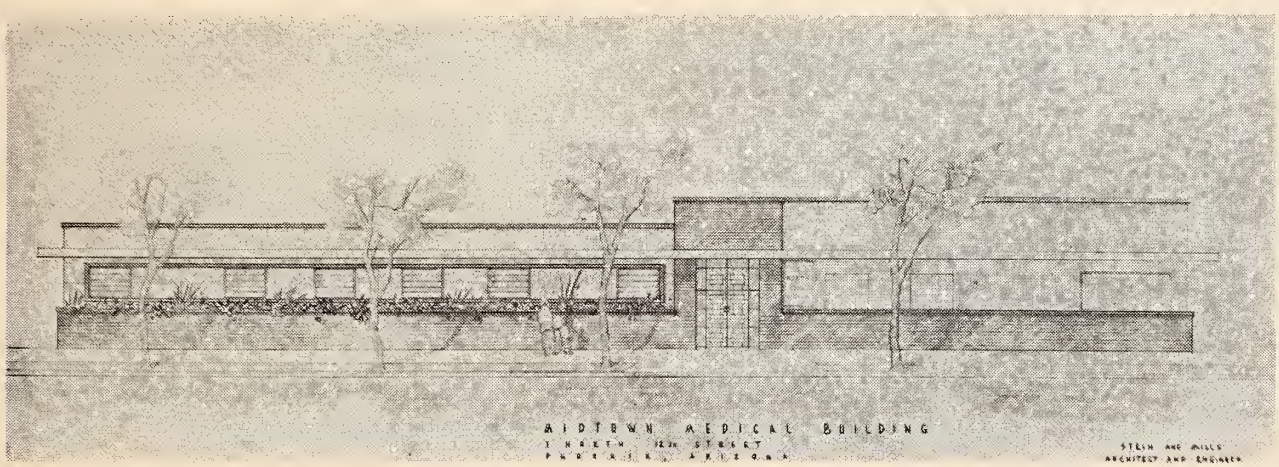
Experts from Johns Hopkins give a thorough account of the medical, surgical, embryologic, and psychiatric aspects of intersexuality including not only all forms of hermaphroditism and anomalies of sex organs but also related endocrine disturbances. Recent treatments are fully covered.

Stacey's Medical Books, San Francisco, Calif.

INTESTINAL OBSTRUCTION
by **Claude E. Welsch**, M.D. 376 pages. Illustrated. (1958) Year Book. $10.50.

A thorough presentation of all types of intestinal obstruction considers the anatomic, physiologic, diagnostic, and therapeutic principles. Excellent diagrams, radiographs, and bibliography support the text.

Stacey's Medical Books, San Francisco, Calif.



MID TOWN MEDICAL BUILDING

1 North 12th Street **Phoenix, Arizona**

Centrally located with adequate parking on premises.
Two M.D. suites available — 600 Sq. Ft.
Two examining rooms — One consultation room
Two lavoratories — Waiting room — Receptionist booth
Individual refrigeration (3 tons) and automatic heating

Pharmacy, Dentist, X-ray and Clinical Laboratory in the building

FOR INFORMATION:
CALL AL 3-2273

Future Meetings

THE ARIZONA MEDICAL ASSOCIATION, INC.

68TH ANNUAL MEETING PROGRAM

IN accordance with direction of the scientific assembly committee at its last meeting, Doctor Melick reviewed progress to date in the development of the program schedule for the 68th annual meeting of the association to be held in Chandler, Ariz., April 28 through May 2, 1959, at the San Marcos Hotel. Below is listed those invited guests who have accepted the invitation:

Bowers, John L. (M.D.) — Dean, University of Wisconsin Medical School.

Carryer, Haddon M. (M.D.) — Mayo Clinic, Rochester, Minn.

Cline, John W. (M.D.) — Associate Professor of Surgery, Stanford University School of Medicine.

Fagg, Jr., Fred Dow (Ph.D.) — President, WICHE.

Gustavson, Reuben G. (Mr.) — President, Resources for the Future.

Hard, Walter L. (M.D.) — Dean, University of South Dakota, School of Medicine.

Jenkins, Harold Dalton (M.D.) — Assistant Professor of Medicine, University of Colorado Medical Center.

Johnson, Marvin E. (M.D.) — Assistant Professor of Surgery, University of Colorado Medical School.

Kessler, Henry H. (M.D.) — Director, Kessler Institute for Rehabilitation.

Lippard, Vernon W. (M.D.) — Dean, Yale University School of Medicine.

Pullen, Roscoe L. (M.D.) — Dean, University of Missouri School of Medicine.

Royce, Thomas L. (M.D.) — Clinical Assistant Professor in Ophthalmology, Baylor University School of Medicine.

Turner, Thomas B. (M.D.) — Dean, Medical Faculty, Johns Hopkins University School of Medicine.

Tuesday, April 28, 1959

1 p.m. — Council meeting.

Wednesday, April 29, 1959

9 a.m. — House of delegates — special session.

2 p.m. — Blue Shield corporate meeting followed by board of directors meeting.

6:30 p.m. — Reception.

7:30 p.m. — Buffet supper.

Thursday, April 30, 1959

8 a.m. — House of delegates — first regular ses-

9:30 a.m. — General session (in usual order).

10 a.m. — Scientific session.

10 a.m.-10:30 a.m. — Henry H. Kessler, M.D.

10:20 a.m.-10:40 am Harold Dalton Jenkins, M.D.

10:40 a.m.-11 a.m. —— Thomas L. Royce, M.D.

11 a.m.-11:20 a.m. — Break.

11:20 a.m.-11:40 a.m. — Haddon M. Carryer, M.D.

11:30 a.m.-12 noon — Marvin E. Johnson, M.D.

12 noon-12:20 p.m. — John W. Cline, M.D.

12:20 p.m. — Luncheon (not sponsored).

2:30 p.m. — Surgical Symposium (To be announced).

Friday, May 1, 1959

It was determined that the Friday (May 1, 1959) schedule be as follows:

7:30 a.m. — Breakfast with Doctor John W. Cline as guest speaker.

9 a.m. — Regular sessions on medical education with Doctor John W. Cline as moderator.

9 a.m. — Speaker — Vernon W. Lippard, M.D.

9:20 a.m. — Speaker — Walter L. Hard, Ph.D.

9:40 a.m. — Speaker — Thomas L. Royce, M.D.

10 a.m. — Speaker — John Z. Bowers, M.D.

10:20 a.m. — Speaker — Roscoe L. Pullen, M.D.

12:30 p.m. — Luncheon — Speaker — Mr. Reuben G. Gustavson.

NOTE: No specialty group luncheon meetings to be provided on this day.

2:30 p.m. Panel discussion with Marvin E. Johnson, M.D., Fred Dow Fagg Jr., Ph.D., and Thomas B. Turner, M.D., followed by a medical school workshop symposium.

NOTE: It was suggested that possibly Doctors Johnson and Royce might dwell on the subject: "Relationship of the Private Practitioners to a Medical School."

5 p.m. — Summarization by John W. Cline, M.D.

5:15 p.m. — Press conference.

6:30 p.m. — Reception.

7:45 p.m. — President's dinner dance.

Saturday, May 2, 1959

8 a.m. — House of delegates — second regular session.

10 a.m. — Scientific session (To be announced)

EXHIBITS

Technical:

Provision is being made providing for 48 technical exhibits to be accommodated in the entrance arcades of the San Marcos Hotel, Arizona Attractions, Inc., of Phoenix to be employed for erection of back and side-wing frames, etc. Approved.

Scientific:

It was agreed to provide space for scientific exhibits to the extent of available space. Applications therefor currently in hand include the safety committee and poisoning control committee of the association.

7TH ANNUAL CANCER SEMINAR
Of the Arizona Division
AMERICAN CANCER SOCIETY

January 22-24, 1959 — Paradise Inn — Phoenix, Arizona

THURSDAY, JANUARY 22

9:00 A.M. — OPENING SESSION
Invocation
Introductory Remarks
Edward H. Bregman, M.D.
Chairman, Seminar Committee

9:15-10:00 A.M. — ANEMIA OF MALIGNANT DISEASE
Speaker — Alfred Gellhorn, M.D.
Moderator — Alloys Tallakson, M.D.

10:00-11:15 A.M. — HODGKINS DISEASE, RELATION OF VIRUSES TO HODGKINS DISEASE
Speaker — Warren Bostick, M.D.
Moderator — W. A. Brewer, M.D.

11:15-12:30 P.M. — RECENT ADVANCES IN DIAGNOSIS AND TREATMENT OF CARCINOMA OF THE CERVIX
Speakers — Howard Hunt, M.D., and Alexander Brunschwig, M.D.
Moderator — Darwin Neubauer, M.D.

12:30 LUNCH

2:30-4:30 P.M. — TUMORS OF CENTRAL NERVOUS SYSTEM
Speakers
James W. Kernohan, M.D.
Phillip Hodes, M.D.
Edwin B. Boldrey, M.D.
Moderator — John Eisenbeiss, M.D.

FRIDAY, JANUARY 23

9:00-10:00 A.M. — Rol Laughner Memorial Lecture: Treatment of Malignant Disease in the U.S.S.R.
Speaker
Alexander Brunschwig, M.D.
Moderator — Reed Schupe, M.D.

10:00-10:30 A.M. — A NEW METHOD FOR DIAGNOSIS OF SOLITARY LESIONS OF THE LUNG
Speaker — L. H. Garland, M.D.
Moderator — Robert Leonard, M.D.

10:30-12:00 A.M. — CARCINOMA OF THE LUNG
Speakers
Richard Overholt, M.D.
W. A. D. Anderson, M.D.
Moderator — D. W. Melick, M.D.

12:00 ANNUAL REPORT, AMERICAN CANCER SOCIETY
Kenneth Clark, M.D., Vice President for Medical Affairs, ASC
Moderator — Arthur J. Present, M.D.

2:00-4.30 — CLINICAL AND PATHOLOGICAL DIAGNOSTIC PROBLEMS
All Participants
Moderator — James D. Barger, M.D.

SATURDAY, JANUARY 24

9:00-10:00 A.M. — REVIEW OF CHEMOTHEAPEUTIC AGENTS
Speaker — Alfred Gellhorn, M.D.
Moderator — Thomas Bate, M.D.

10:00-12:00 A.M. — TUMORS OF THE STOMACH
Speakers
L. H. Garland, M.D.
Alexander Brunschwig, M.D.
W.A.D. Anderson, M.D.
Moderator — Paul Jarrett, M.D.

SAT. AFTERNOON — NURSES SEMINAR
Paradise Inn, Phoenix, Arizona

Saturday, Jan. 24

9 a.m. — Opening Session.

Greeting — Robert B. Leonard, M. D.

Welcome — Jefferson I. Brown, R.N.

9:15 a.m. — Nursing and the CA patient — Clare Richmond, R.N.

10:30 a.m. — Nurse and the cytology program — Preston Brown, M.D.

12 noon — Lunch — Medicine and nursing in Russia. Alexander Brunschwig, M.D.

2:30 p.m. — Chemotherapeutic agents and the nurse. Alfred Gellhorn, M. D.

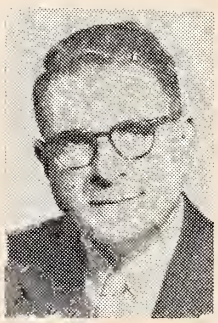
3:30 p.m. — (Subject to be announced). Phillip Hodes, M.D.

Moderator: Robert B. Leonard, M.D.

Co-sponsored by:

Arizona Division, American Cancer Society.
Arizona League of Nurses.
Arizona State Nurses Association.
Arizona State Department of Health.

SPEAKERS AND PANELISTS



Dr. Gellhorn



Dr. Bostick



Dr. Hunt



Brunschwig



Dr. Kernohan

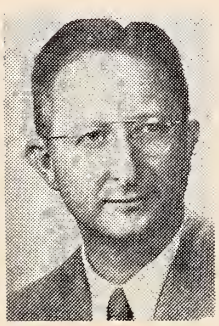
Alfred Gellhorn, M.D. Associate Professor of Medicine and Director, Institute of Cancer Research, Columbia University, New York.

Warren Bostick, M.D. Associate Professor of Pathology, University of California.

Howard Hunt, M.D. Director of Tumor Clinic and Professor of Radiology, University of Nebraska.

Alexander Brunschwig, M.D. Professor of Clinical Surgery, Cornell University Medical School, N. Y. City, N. Y.

James W. Kernohan, M.D. Professor of Pathology, Mayo Foundation, Rochester, Minn.



Dr. Hodes



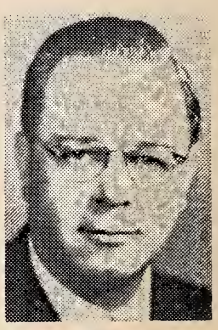
Dr. Boldrey



Dr. Garland



Dr. Overholt



Dr. Anderson

Phillip Hodes, M.D. Professor of Radiology, University of Pennsylvania, Philadelphia, Pa.

Edwin B. Boldrey, M.D. Associate Professor, Chairman of Dept. of Neurosurgery, University of Calif.

L. H. Garland, M.D. Professor of Radiology, Stanford University, San Francisco, Calif.

Richard Overholt, M.D. Thoracic Surgeon, Clinical Professor of Surgery, Tufts College, Boston, Mass.

W. A. D. Anderson, M.D. Professor of Pathology, University of Florida School of Medicine, Coral Gables, Fla.

For further information write: Edward H. Bregman, M.D., Chairman, Cancer Seminar Committee, American Cancer Society, 543 East McDowell Road, Phoenix, Arizona.

RESEARCH EDUCATION SERVICE ARIZONA DIVISION

DR. Edward H. Bregman, Phoenix Radiologist, has announced the completion of plans for the 7th annual cancer seminar. The event, sponsored yearly by the Arizona Division of the American Cancer Society, will be held Jan. 22, 23 and 24 at Paradise Inn in Phoenix. This year's seminar will also include a one-day session on Jan. 24 for nurses.

Dr. Bregman pointed out that ACS sponsored seminars were pioneered in Arizona and have since been adopted by many groups across the country. The Arizona Cancer Seminar, however, continues to be one of the top medical meetings in the United States, due largely to the fine climate and vacation facilities available to visiting doctors.

This year's Seminar will be the largest ever in scope. Ten internationally famous speakers and panelists from seven states will be featured during the three-day event. Many of these men are in the forefront of the nation's current cancer research efforts. Their subjects will cover the latest diagnostic and treatment techniques as well as up-to-the-minute reports on research. Their remarks will be reported nationwide by science writers and press services.

Dr. Robert Leonard, Professional Education chairman for the ACS, Arizona division, stated that invitations are being extended to all Arizona doctors to attend the Seminar, and that 100 or more out-of-state doctors are expected.

"The Cancer Seminar offers a wonderful opportunity for our local doctors to confer with top specialists. Then, too, as a result of comparing notes with other doctors, the specialists themselves often come up with a new idea which adds impetus to research. So, meetings such as this are highly beneficial to all parties concerned," Dr. Leonard said.

PARADISE INN

PHOENIX

WELCOMES

The 7th Annual Cancer Seminar

JAN. 22, 23 and 24, 1959



"THIS IS PARADISE!"

SECOND ANNUAL CARDIAC SYMPOSIUM

ARIZONA HEART ASSOCIATION
Jan. 30, 31, 1959
Arizona Biltmore Hotel, Phoenix

Symposium Committee
Dr. Robert Bullington
Dr. Leslie Kober
Dr. Earl Baker
Dr. David Long
Dr. Shaw McDaniel
Dr. Tom Reed

Friday, Jan. 30

9:00 a.m. — Greetings by Dr. Elmer E. Yeoman, Tucson

9:15-10:15 — "Studies in Spatial Vectorcardiography," Dr. George E. Burch, New Orleans

10:15-10:30 — Intermission

10:30-11:30 — The Problem of Arteriosclerosis, Dr. Irvine H. Page, Cleveland

11:30-12:30 — Changing Concepts in the Surgery of Atherosclerotic Occlusive Diseases, Dr. Michael E. DeBakey, Houston

12:30-2:00 — Lunch

2:00-3:00 — Interesting Aspects of the Aging Process, Dr. George E. Burch, New Orleans

3:00-4:00 — Diagnostic Applications of Indictator Dilution Curves with Particular Reference to Right and Left Heart Sampling, Dr. H. J. C. Swan, Rochester, Minn.

4:00-5:15 — Intermission

4:15-5:00 — Panel Discussion, Dr. Robert H. Bullington, Moderator

7:00-8:00 — Cocktail Party

8:00 — Dinner and Dancing at Arizona Biltmore Hotel

Saturday, Jan. 31

9:00 — Greetings by Dr. Donald K. Buffmire, Phoenix

9:15-10:15 — Subject to be announced later, Dr. S. Gilbert Blount, Denver

10:15-10:30 — Intermission

10:30-11:30 — On the Pulmonary Hypertension Associated with Defects in the Interatrial and Interventricular System, Dr. H. J. C. Swan, Rochester, Minn.

11:30-12:30 — Surgical Consideration of Aneurysms of the Aorta, Dr. Michael E. DeBakey, Houston

12:30-2:00 — Luncheon

2:00-3:00 — The Nature and Treatment of Hypertension, Dr. Irvine H. Page, Cleveland

3:00-4:00 — Subject to be announced later, Dr. S. Gilbert Blount, Denver

4:00-4:15 — Intermission

4:15 — Panel Discussion, Dr. Elmer E. Yeoman, Tucson, Moderator.

GENETICS AND CANCER

Topic of 13th Annual Symposium on Fundamental Cancer Research, Feb. 26, 27 *and* 28, 1959 *at the University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas. Thursday, Feb.* 26

Fundamental Aspects of Genetics in Carcinogenesis, I: Chairman, Wilson S. Stone: The University of Texas, Austin, Texas

9 a.m. — Gene Action: David M. Bonner, Yale University, New Haven, Conn.

9:40 — DNA Metabolism and Carcinogenesis: Saul Kit, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas

10:15 — *Intermission*

10:30 — Macromolecular Synthesis and Gene Function: Alfred E. Mirsky, Rockefeller Institute for Medical Research, New York, N. Y.

11:10 — Genetic Replication and Carcinogenesis: Felix L. Haas and Charles O. Doudney, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas

11:50 — Radiation in Relation to Carcinogenesis and Mutation: R. Latarjet, Institute Pasteur, Paris, France

12:30 p.m. — *Lunch*

Fundamental Aspects of Genetics in Carcinogenesis, II: Chairman, M. Demerec, Carnegie Institution, Cold Spring Harbor, N. Y.

2 p.m. — The Plasmagene Theory and Cancer Genesis: C. D. Darlington, Oxford University, Oxford, England

2:40 — The Somatic Mutation Theory of Cancer Genesis: Jack Schultz Institute of Cancer Research, Philadelphia, Pa.

3:20 — Lysogeny, Transduction and Cancer Genesis: Elie Wollman, Institute Pasteur, Paris, France

4 — *Intermission*

4:15 — Cancer Viruses in Mammals and the Possibility of Lysogenic Origin: L. L. Dmochowski, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas

4:55 — Genetic Determination of Cancer Sus-

ceptibility: Lloyd Law, National Cancer Institute, Bethesda, Md.

Friday, Feb. 27

Gene Interaction in Neoplastic Growth: Chairman, T. S. Painter, The University of Texas, Austin, Texas

9 a.m. — Site of Gene Action and Carcinogenesis: W. Heston, National Cancer Institute, Bethesda, Md.

9:40 — Cytogenetics of Experimental Tumors: George Klein, Karolinska Institute, Stockholm, Sweden

10:15 — *Intermission*

10:30 — Immunogenetics of Transplanted Skin: Theodore S. Hauschka, Roswell Park Memorial Institute, Buffalo, N. Y.

11:10 — Genetics of Vitro Cells: T. C. Hsu, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas

11:50 — Relations of the Chromosome Status to the Origin and Progressioin of Tumors: Albert Levan, University of Lund, Lund, Sweden

12:30 p.m. — *Lunch*

Genetic Basis of Cell Resistance: Chairman, W. E. Heston, National Cancer Institute, Bethesda, Md.

2 p.m. — Genetic Aspects of Bovine Ocular Carcinoma: David Anderson, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas

2:40 — The Chromosomal Status of Drug-Resistant Sublines of Mouse Leukemia L 1210: John Biesele, The University of Texas, Austin, Texas

3:20 — Tumor Cell Resistance to Antimetabolites and Its Possible Genetic Implications: George W. Woolley, Sloan-Kettering Institute, New York, N. Y.

4 — *Intermission*

4:15 — Bertner Foundation Lecture (Speaker and topic to be announced)

Saturday, Feb. 28

Heredity and Human Cancer: Chairman, James F. Crow, University of Wisconsin, Madison, Wis.

9 a.m. — Genetics of Man: William J. Schull, The University of Michigan, Ann Arbor, Mich.

9:40 — Methods of Study of Human Genetics: Newton Morton, University of Wisconsin, Madison, Wis.

10:15 — *Intermission*

10:30 — Genetic Considerations in Human Breast, Gastric and Eye Cancer, Madge Macklin, Ohio State University, Columbus, Ohio

11:10 — Genetic Studies on Families with High Cancer Incidence: Clarence P. Oliver, The University of Texas, Austin, Texas

11:50 — Summarizing Remarks: Howard B. Andervont, National Cancer Institute, Bethesda, Md.

For further information regarding the symposium, please contact the Editorial Office, The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas.

* * *

Physiological and Clinical Considerations of the Gastrointestinal Tract

Wednesday, Dec. 17, 1958
Physiological and Clinical Considerations of Respiration

Wednesday, Jan. 7, 1959
Physiological and Clinical Considerations of the Kidney

Wednesday, Jan. 21, 1959
Physiological and Clinical Considerations of the Nervous System

Wednesday, Feb. 4, 1959

Meeting place for all courses:

Room A 3-215 University of California Medical Center, Los Angeles.

Dates: Dec. 17, 1958, Jan. 7, 21, and Feb. 4, 1959.

Time: 2 to 10 p.m.

Fee: $20 for one day.

Information: Requests for application or information concerning these courses should be made to:

Thomas H. Sternberg, M.D.
Assistant Dean for Postgraduate
Medical Education
University of California Medical Center
Los Angeles 24, Calif, or telephone:
GRanite 8-9711 or BRadshaw 2-9811, Ext. 7114

THE SOUTHWESTERN SURGICAL CONGRESS

Denver, March 30, through April 2, 1959. Headquarters — Brown Palace Hotel.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION

THE 37th annual scientific and clinical session of the American Congress of Physical Medicine and Rehabilitation will be held Aug. 30-Sept. 4, 1959 inclusive, at the Hotel Leamington, Minneapolis.

Scientific and clinical sessions will be given Aug. 31, Sept. 1, 2, 3 and 4. All sessions will be open to members of the medical profession in good standing with the American Medical Association and/or state or country medical association.

Full information may be obtained by writing to the Executive Secretary, Dorothea C. Augustin, American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2, Ill.

LOS ANGELES RADIOLOGICAL SOCIETY

THE 11th annual mid-winter radiological conference, sponsored by the Los Angeles Radiological Society, will be held at the Statler Hotel, Los Angeles, Calif. on Saturday and Sunday, Jan. 31 and Feb. 1, 1959.

An outstanding program of pertinent interest has been arranged and the guest speakers will be: Dr. Peter Kerley, London, England; Professor D. W. Smithers, London, England; Dr. F. N. Silverman, Cincinnati, Ohio; Dr. A. Finkelstein, Philadelphia, Pa.

The conference fee of $20 includes two luncheon meetings featuring questions and answers. A banquet ($7.50 per plate) preceded by cocktails will be held Saturday evening. Reservations may be made through: Dr. Chester P. Bonoff, 1930 Wilshire Blvd., Los Angeles 57, Calif.

CALENDAR OF MEETINGS

DATE	MEETINGS	PLACE
Jan. 1959		
4-7	Southeastern Region Meeting International Coll. of Surgeons	Miami, Fla.
Feb.		
5-8	American Coll. of Radiology, Annual Meeting	Chicago, Ill.
March		
9-12	AMA 4-day Sectional Meeting	St. Louis, Mo.
16-20	National Health Council Annual Meeting	Chicago, Ill.
30 - Apr. 2	Southwestern Surg. Congress	Denver, Colo.
April		
6-8	American Radium Society	Homestead Hotel, Hot Springs, Va.
6-9	American Academy of General Practice	San Francisco, Calif.
9-12	American Ass'n. for Cancer Research Inc.	Haddon Hall, Atlantic City, N. J.
20-23	American Ass'n. Pathologists & Bacteriologists	Boston, Mass.
20-24	American College of Physicians	Conrad Hilton Hotel, Chicago, Ill.
28 - May 2	Arizona Medical Association	Chandler, Ariz.

BOOK REVIEWS

PHYSICIAN'S HANDBOOK
by Marcus A. Krupp, M.D., Norman Sweet, M.D., Ernest Jawetz, M.D., and Charles Armstrong, M.D. 10th rev. ed. 500 pages. (1958) Lange. $3.

One of the best buys in medical literature, this handy, pocket size volume puts diagnostic and therapeutic procedures of practical value within quick reach during daily hospital and office practice. The authors are with the schools of medicine at Stanford University, and the University of California, San Francisco.

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Woman's Auxiliary

REPORT OF CHICAGO CONFERENCE

By Mrs. Hiram Cochran, President-elect,
Auxiliary to the Arizona Medical Association

THE 15th annual conference of state presidents, presidents-elect, and national committee chairmen held at the Drake Hotel in Chicago was an informative and inspiring affair. For two and a half days we listened to approximately 75 people, representing the American Medical Association, the national auxiliary and many other national organizations, give us "the word" on all matters pertaining to our auxiliary program.

The theme of this conference, "Auxiliaries in Action," was certainly lived up to as state presidents and national committee chairmen reported on the work of the past and outlined the plans for the future.

In an AMA round-up, Dr. E. B. Howard, assistant executive vice president, talked of the reorganization that the AMA has been undergoing for the past year. Included in this is the remodeling of the AMA headquarters building and the starting of the AMA News, the newspaper of American medicine, published twice a month. The newly organized American Medical Research Foundation was explained and Medicare, (care for service people) was discussed. Dr. Howard was the first of many of the speakers to bring up the subject of the aged and what AMA is attempting to do in regard to this matter. It seemed to be the opinion of all who spoke on this subject that it was a problem and one that medicine must take a definite interest in if we are to combat the increasing demands of the government for such legislation as the Forand bill. He stressed the need for the auxiliaries and medical societies to ally themselves with other organizations in trying to solve the problems of the aged.

Mr. Joseph Stetler, director of the law division of the AMA, and Mr. Warren Whyte, executive secretary of the committee on legislation, elaborated on the Forand bill and Jenkins-Keogh. It was their opinion that the Forand bill would continue to be back in every congress until it is proved just what it is, socialized medicine. They also felt that the answers to problems associated with aging and the aged must be made at the grass root level. There will be conferences held in each state in 1959 with a White House conference planned for 1960. They urged all county and state auxiliaries and societies to participate in these conferences.

Membership panelists gave us the answers to some of the problems concerning membership in the large auxiliaries, the new members, and the member-at-large. We were asked to "think anew, act anew." Learn to fit the jobs to the individual members and be sure that there are activities planned for *all* members.

Mrs. Turner, historian and past national president, asked us not to forget the past because we have so much invested in it, and that we find many of our answers to the present in the things of the past.

Mr. James Liston, the new editor of Today's Health, told us this was to be an "E. E. Year" Extra Effort on the part of every auxiliary member to be a subscriber to the magazine and see that there was a copy in every doctor's and dentist's office.

Community service is an old committee with a new name. Known formerly as public relations, it was felt that the new name was more indicative of the committee's main function. As Mrs. Jack Kennedy, chairman of the committee said, "Community service is the act, public relations is the result." Here again we were urged to work in the community, as individuals and as auxiliary members. We were told that the community is like a living body, constantly growing and changing. How well or how poorly depends upon the individual citizen. It is our duty as auxiliary members to keep people aware of the changes in medicine and health care. Be informed ourselves, then inform others.

The panel devoted to paramedical careers recruitment was extremely informative and interesting. In addition to our big interest in the nurse recruitment field, they felt that the time has come when we must broaden our interest and increase our knowledge of the other allied fields of medicine such as medical technology, physical therapy, dietetics and the medical social worker, to name a few.

The civil defense members again stressed home preparedness and said that civil defense should be a joint endeavor of the federal gov-



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ernment, state and local groups. They asked that we "evacuate" the thought from our minds that "it can't happen here."

It is almost an impossible task to put down on paper the wealth of information and data we received at this conference. But I feel that the purpose of the meeting, "the exchange of ideas and enrichment of our auxiliary lives," was accomplished, and I am truly grateful to have had the privilege of being just one of the 125 women who were there representing our 80,000 auxiliary members.

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THE MEDICAL WORLD OF THE 18TH CENTURY
by Lester S. King, M.D. 346 pages. (1958) University of Chicago. $5.75.

A series of 10 essays deals with interesting and certain not commonly reported aspects of the science and art of medicine of the time. Representative topics include: apothecary and physician; Herman Boerhaave, scientist; of fevers, the development of medical ethics. If you like history, you will not easily put this down.

Stacey's Medical Books, San Francisco, Calif.

RECENT ADVANCES IN OTOLARYNGOLOGY
by F. Boyes Korkis, FRCS. 3rd ed. 438 pages. Illustrated. (1958) Little, Brown. $12.

An expert from London appraises world literature in an effort to screen out practical information for physicians in their daily practice. Not intended to compete with standard texts, only the latest advances in the medical and surgical aspects of diagnosis and treatment are included.

Stacey's Medical Books, San Francisco, Calif.

A MANUAL OF CARDIAC RESUSCITATION
by Robert M. Hosler, M.D. 2nd ed. 208 pages. Illustrated. (1958) Thomas. $5.

The author has collaborated with Dr. Claude S. Beck in his original work on cardiac arrest. This second edition presents concisely and clearly the step-by-step practical scientific approach to the problem of cardiac resuscitation. Every surgeon, practitioner and dentist should have this awareness and be ever ready for speedy action.

Stacey's Medical Books, San Francisco, Calif.

REGIONAL ILEITIS
by Burrill B. Crohn, M.D. and Harry Yarnis, M.D. 2nd ed. 239 pages. Illustrated. (1958) Grune & Stratton $7.25.

Dr. Crohn, who first described the disease, brings his experience up to date in this monograph. Analyzing 676 cases, he discusses etiology, pathology, clinical features, diagnosis, and problems in physiology along with medical and surgical management. The volume is well illustrated and includes many radiographs.

Stacey's Medical Books, San Francisco, Calif.

THE LIFE OF SIR WILLIAM OSLER, Vol. 1 and 2
by Harvey Cushing, M.D. 1,413 pages. (1958) Oxford. $15 set.

Originally published in 1925 in a two volume edition. *"The Life of Sir William Osler"* appeared in 1940 in a single volume. It now appears again in two volumes, apparently printed from the original plates. There are only a few books each decade which survive their initial acclaim and become enduring classics. This is such a book. It won the Pulitzer prize for biography the year it was published and has since continued to win a place in the hearts of thousands of readers. Dr. Cushing's biography is not simply a memoir, but the story of a man whose ideas are still a directing force in the contemporary medical world. As Dr. Karl A. Menninger has said, *"The Life of Sir William Osler* will remain one of the classical biographies of our profession for at least the rest of this century."

Stacey's Medical Books, San Francisco, Calif.

SIGNS, SYMPTOMS AND TREATMENT OF CERTAIN ACUTE INTOXICATIONS
by William B. Deichmann and Horace W. Gerarde, M.D. 2nd ed. 154 pages. (1958) Thomas. $3.75.

The development of new insecticides and industrial poisons led to this revision. Over 400 new entries have been added, together with a numerical-alphabetical system of indexing to expedite use of the reference in emergencies.

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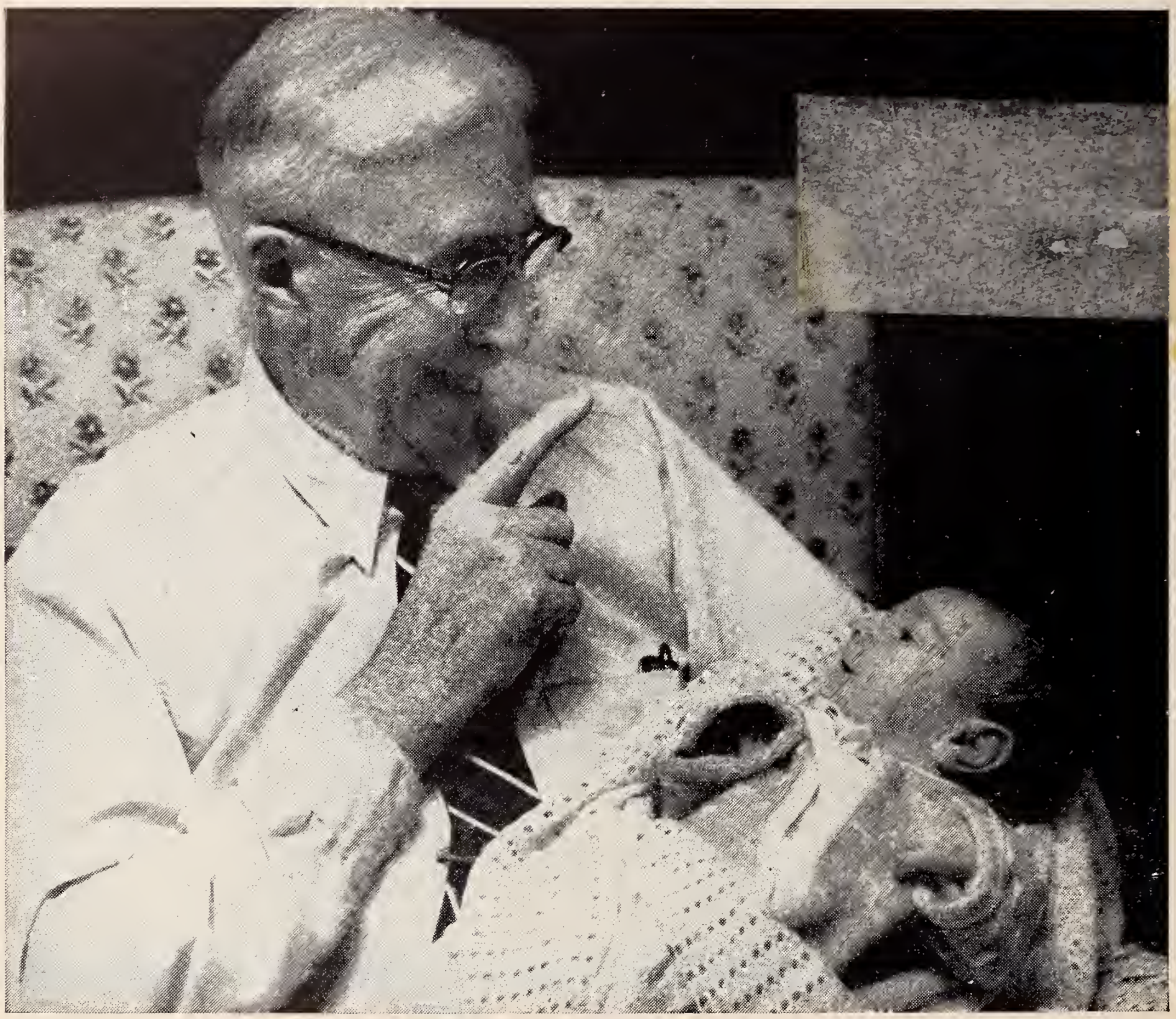
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REFERENCES:

1. Eisenberg, B. C.: Clinical Medicine *5*:897-904 (July) 1958.
2. Feinberg, A. R., et al.: J. Allergy *29*:358 (July) 1958.
3. Robinson, H. M., et al.: So. Med. J. *50*:1282 (Oct.) 1957.

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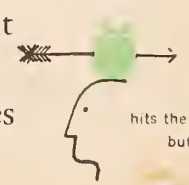
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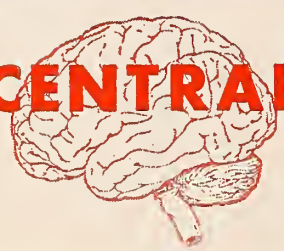
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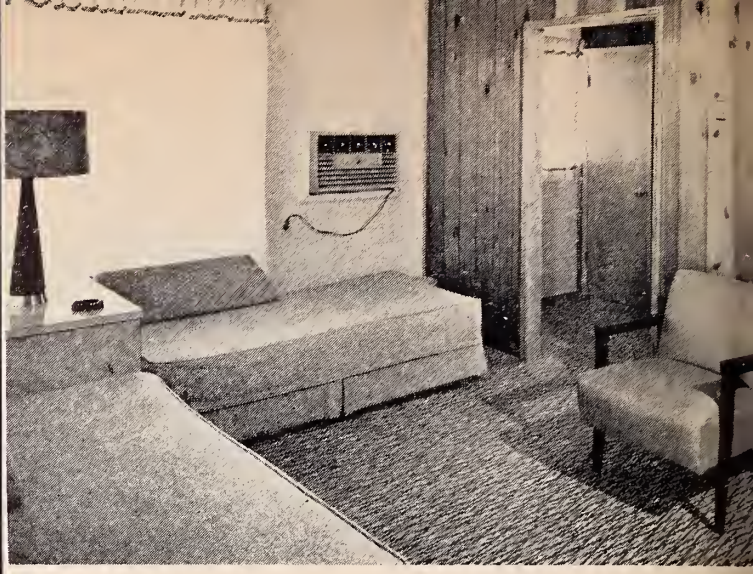
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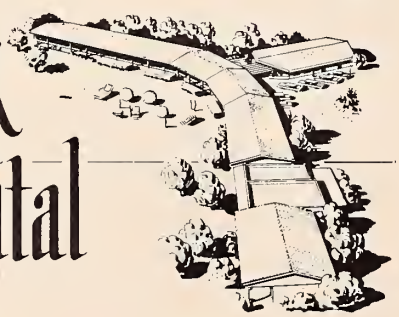


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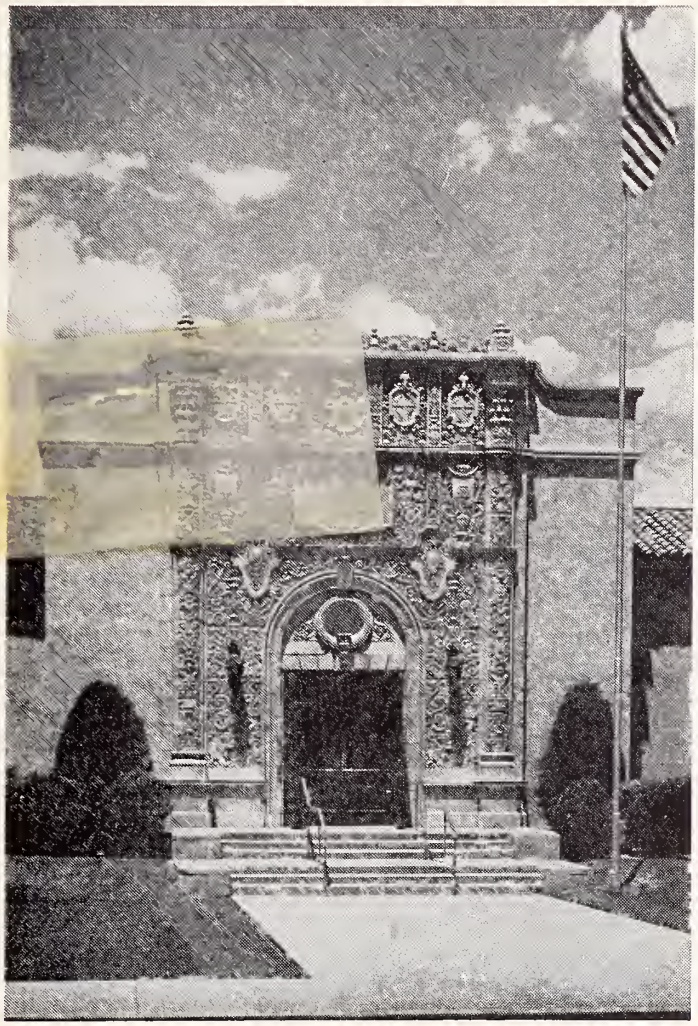
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